

PLANNING EDUCATIONAL INVESTMENT
FOR THE DEVELOPMENT OF
THE BORDERS REGION OF SCOTLAND

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Depopulation and decline sustained in the Borders counties for over a hundred years reached critical proportions during the 1960's. The shrunken population was skewed to the elderly and the female, and employment opportunities for those remaining were diminished by deterioration of the narrow economic base.

Attempts to redress the downward slide of the economy have focused on the importation of industry from outside the region. These have met with limited success. At the same time, the focus on town-based industrial development has encouraged the threefold effect of migration from countryside to cities, urban overcrowding and unemployment, and farm abandonment, that bedevil governments everywhere. Land-based development, to stem or reverse this flow, has been advocated for developing countries for several years. It may be as appropriate for developed nations in some regions.

In this form of development the Borders have an advantage. Without a heavy burden of civil and industrial bureaucracies or of cities with their expensive infrastructures, it is an ideal location for land-based, labour intensive operations. It has, as well, estates large enough to establish agro-industries on a viable scale.

In the foreseeable future increasing costs and scarcity of fuels will force a substitution of manpower for machinery. Transportation of goods and commuting of workers will be restricted. Land-based development could become obligatory. There are many advantages for the Borders in such a development. Present settlement patterns

and employment structures obviate the development rather than hinder it. The extra jobs created would enable the elderly to return to the workforce. Development would be indigenous and would not require large importations of capital.

Education will play a central role in the accommodation to such a dramatic change of direction. Community education, on-the-job, in-service training and continuing, nonformal education will have to be greatly extended to impart new skills and engender new social attitudes and new levels of expectation.

This study will attempt to do that for a part of Scotland, the Borders Region.

Until quite recently education was not looked upon as an investment. For leaders of society and members of the government, and for educators, too, the concern was for the part that good teaching and certain curricula play in the preparation of good citizens for a free society. Economists generally ignored education. They were concerned with the factors of production, the availability and use of land, capital, labour supply and technology and the quantification of their contributions to a nation's economic growth. Education was treated in the same way as nature's production of coal. Economists theory began with what was there, not with its production.

For economists this failure to conceptually connect economic development to educational development probably is due to the fact that while they have become increasingly more skilful in describing and developing policies for the management of economic growth and expansion, they have developed little understanding of how the process of economic enterprise is initiated and fostered. For educationists the failure to systematically connect educational development to economic development has been due to their myopic view of development as primarily an individualistic-psychological phenomenon.

Preface

From the standpoint of costs, education is one of man's most expensive enterprises. From the standpoint of an investment it may well be his most rewarding. If the latter is true, and Chapter 1 will investigate the arguments of writers who contend that it is, then governments have an obligation to weigh the kinds and amounts of educational investment that are most appropriate for their societies to develop the educational resources required to achieve the social and economic gains they seek. This study will attempt to do that for a part of Scotland, the Borders Region.

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This coupled with a century of struggle dedicated to obtaining political, economic, governmental and administrative autonomy for educational systems provided little motivation for discovering how economic and educational organisations mutually facilitate or inhibit each other's development.¹

This lack of reciprocity between the two fields of study has left communities with little information on which to base their educational planning so as to contribute to their economic development. Now two new factors have increased the urgency for this information. The first, a combination of population growth and inflation, is making the task of providing a means of livelihood for everyone, at a reasonable standard of living, a difficult and perhaps soon impossible, goal. The second, the running down of our energy reserves, confronts our society with the certainty that our mass consumption system cannot continue to wastefully deplete our finite resources. Yet our educational system, conditioned to serve a consumer economy, still teaches students to think of themselves as manipulators of machines and as tomorrow's inheritors of an automation-produced Utopia.

The purpose of this study, therefore, is to lay the groundwork for an integration of educational planning and development plans in the Borders Region so that they may become supportive of one another and to suggest an alternative to a machine-intensive economy for the region that will concern itself with conservation rather than depletion.

¹Jensen, Gale Edw., The Educational Development of Human Resources for Community Economic Development. Occasional Paper Two, Graduate Study Programme on Education and Community Development, School of Education, University of Michigan, Ann Arbor, 1974, pp. 1, 2.

The formal education system, by its nature, relies on a curriculum that spans a number of years. It is, perforce, slow to react to change and incapable of producing a new and different workforce in a short period of time. Adult education, on the other hand, is flexible in format, curriculum, and venue. It may be taken to where those who need the education or training are and may be specific to their needs. Adults can absorb new information and skills quickly. Since rapid adaptation is essential to the development plans outlined in this study, the most important element in the allocations will be the education of adults component.

Definitions of adult education differ according to the country, region or context in which the term is used. In Britain, the terms of reference of the 1919 Report still cast their shadow over local authorities and other responsible bodies so that much of the provision of adult education is still restricted to topics "other than technical or vocational".² For the purposes of this study this is too narrow a purview. John Lowe's definition for the continuing education of adults would better serve. He argues for a wide ranging interpretation in which "vocational, non-vocational, general, formal, informal, liberal and recreational education are constituent parts".³ But the formula of the International Congress of University Adult Education serves this study best. It differentiates five categories of adult education:

²Ministry of Reconstruction, Adult Education Committee, Final Report. H.M.S.O., 1919.

³Lowe, John, Adult Education in England and Wales. Michael Joseph Limited, London, 1970, p. 25.

- (i) remedial education: fundamental and literacy education;
- (ii) education for vocational, technical and professional competence;
- (iii) education for health, welfare and family living;
- (iv) education for civic, political and community competence;
- (v) education for self-fulfilment.⁴

This study will use the terms outreach, nonformal education, on-the-job, in-service training and community education in place of the categories used by the International Congress. They are not rigidly compartmentalized terms, but overlap. The first will encompass categories (i), (ii), (iii) and (v) in conditions in which education is taken to the pupil rather than the reverse and the emphasis is on the process of learning rather than on the structure of the learning situation. The second, on-the-job, in-service training, will include categories (ii) and (v) for employment-based education. Community education will include categories (iii), (iv) and (v) and will refer to the development of a better understanding of, and new attitudes about community problems. It will refer to programmes based in communities, concerned with the felt needs of the population, designed to enable individuals to come to grips with the social, economic and political problems of their everyday lives, and to assist them to work out accommodations for themselves, or jointly with their neighbours. The terms will be more fully examined in Chapter 8.

The intent of this study is to establish that there is a way of allocating funds for education, and particularly funds for adult education, which takes into account the way people live and their

⁴Liveright, A. A. and Haygood, N. (eds.), The Exeter Papers. Boston, 1968, p. 9, cited in Lowe, op. cit., p. 29.

aspirations for the future, and which is better than the present method of simply handing out bits of funds here and there according to individual justification. The way chosen is a framework for the allocation of educational investments which has emerged out of research. It is based in a few simple maxims: That community education is becoming increasingly necessary in rapidly changing societies that disorient and alienate sensitive human beings. That community education has great potential for social, civic and political education, at little cost. That whereas adult education, as traditionally defined, has consistently failed to attract and involve large numbers of people to its learning programmes⁵, outreach programmes can take the learning situation to where the people are and relate it to their daily lives. That if an economy, and hence, a job market, is to change, on-the-job, in-service training is the educational programme that can provide the new workforce fast. That if you want to move the economy quickly, this is where the payoff is, whereas there is no sense of immediacy in the traditional system, so that it is incapable of rapid adaptation.

Existing plans for development within the Borders Region will be examined. It will be contended that these are not wholly compatible with one another, that they do not contain suggestions for indigenous development and that they do not consider educational investment. This study will make proposals to overcome these shortcomings.

⁵Adult Education: The Challenge of Change. Report by a Committee of Inquiry under the Chairmanship of Professor K. J. W. Alexander, Scottish Education Department, H.M.S.O., Edinburgh 1975, p. 16.

Among the most important decisions facing the Borders Regional Government will be what kinds and amounts of educational investments to make to develop the educational resources of the region. It is hoped that this study will make a useful contribution to that decision.

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THE CENTRAL PROBLEM

For two decades the literature of education and economics has

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Blair, H. M. *Report of the Commission of Enquiry into the State of the Borders Region*. Edinburgh: Scottish Education, 1970.

Report of the Commission of Enquiry into the State of the Borders Region. Edinburgh: Scottish Education, 1970.

THE GENERAL PROBLEM

For two decades the literature of education and economics has featured an interest in the relationship between education and development.¹ The thrust of this interest has been to substantiate that a relationship does exist and to devise ways in which the relationship might be qualified and quantified. The nature of the relationship has received far less attention and is less well understood. Yet it is precisely this nature which must be understood by those responsible for the allocation of resources at regional levels if they are to make decisions which optimize the returns in community and regional development for their educational investments.

This problem, which confronts administration in all development areas, is the general problem examined in this study; how can those responsible for educational planning and expenditure determine that all their investments in education will contribute to the development of their area?

The Border Region as a data collection site for studying the problem.

In the reorganisation of local government which became effective in May of 1975 the four Scottish counties of Peebles, Selkirk, Roxburgh and Berwick became a single administrative authority - the Borders Region.² It is particularly appropriate that information

¹Blaug, Mark. Economics of Education: A Selected Annotated Bibliography. Second Edition, Oxford: Pergamon Press, 1970.

²Reform of Local Government in Scotland. Edinburgh: H.M.S.O., February, 1971. Cmd. 4583.

should be collected and analysed for this region at this time. The administration of the new authority will require data on which to establish policy and to make a wide range of decisions.³ Local aspirations and plans have to be reassessed in the context of the region as a whole and development plans for the new region have to be formulated which take local needs into account. "If indeed regional administration is to achieve its full potential, then the social and economic development of an area must proceed with close account being taken of its physical, social and cultural characteristics."⁴

Additionally, some form of autonomous Scottish legislature appears now to be a certainty within the foreseeable future.⁵ It is imperative that such a governing body be supplied with statistics specific to the territory and people for which it has responsibility. Such statistics are frequently non-existent or difficult to extrapolate at present. Government departments, hospital boards and the plethora of other agencies from whom detailed statistics are required, operated, prior to regionalisation, under a welter of authorities whose district boundaries bore little resemblance one to another.⁶

³Macgregor, D. R. (editor). The Borders Region. University of Edinburgh, March, 1974, p. 7.

⁴Ibid.

⁵The Scotsman, Edinburgh, 30 July, 1974.

⁶Gruer, Rosamond. The Needs of the Elderly in the Scottish Border Countries. Department of Social Medicine, University of Edinburgh, 1970.

The Borders Region has particular relevance for a study of this kind. As the smallest top tier region in Scotland in terms of population, it is essential that development plans be successful if the region is to prove itself a viable entity. The region occupies a strategic position between the industrialized central belt of Scotland and the industrial midlands of England. It has gone down hill for a considerable time.⁷ It is an area with high development potential which is yet to be realized.⁸ It is experiencing many of the difficulties which contribute to the general problem on which this study is based,⁹ as for example, the exportation of educated young men who represent a lost investment of the educational resources of the region.

Specific theoretical and practical objectives of the study.

Theoretical acceptance of the social and economic benefits of education is far from new. Adam Smith included "the acquired and useful abilities of all the inhabitants or members of society" in his concept of "fixed capital".¹⁰ Theodore Schultz, more recently,

⁷ Scottish Office, The Scottish Economy 1965-1970: A Plan for Expansion. Edinburgh: H.M.S.O., 1966. (Cmd. 2864).

⁸ Scottish Development Department. The Central Borders: a plan for expansion. Edinburgh: H.M.S.O., 1968.

⁹ Jensen, Gale Edw. and Medlin, William K. (eds.), "Relationships between education and educational development: an interpretation of Soviet policies", Readings on the Planning of Education for Community and National Development. Problems in Education and Nation Building, Vol. 1, Ann Arbor: Ann Arbor Publishers, 1969.

¹⁰ Smith, Adam. The Wealth of Nations, Modern Lib. edn., New York, cited in Schultz, T.W. "Investments in human capital", The American Economic Review, LI (March, 1961), p. 2.

proposed that "people enhance their abilities as producers or consumers by investing in themselves".¹¹ Despite his emphasis on individual gain Schultz and the vast majority of the other researchers who contributed to this study during the 1950's and early 1960's, developed techniques for evaluating investments and returns which were applicable in a national context only. Midway through the 1960's, however, new approaches were introduced by Adelman,¹² Benard,¹³ Jensen and Medlin¹⁴ and others which reduced the area of study to a region, a community or even a single factory. Finally the tools were provided to local authorities to consider the appropriateness of their educational investments.

This study utilizes one of the latter approaches and tests its usefulness as a diagnostic and predictive instrument in a regional context.

The practical problem.

Data was collected and analysed with respect to a wide spectrum of the social, administrative and economic life of the Borders in order to assess the present level of development. Educational

¹¹Schultz, T. W. The Economic Value of Education. New York: Columbia University Press, 1963, p. x.

¹²Adelman, Irma. "A linear programming model of educational planning - a case study of Argentina", in Adelman, I. and Thorbecke, E. (eds.). The Theory and Design of Economic Development. Baltimore: The John Hopkins Press, 1966, p.p. 385-412.

¹³Benard, Jean. "General optimization model for the economy and education", Mathematical Models in Educational Planning, Paris: O.E.C.D., 1967, p.p. 385-412.

¹⁴Jensen and Medlin, op. cit.

activity was examined and related to regional, county and community development. On the basis of this assessment a plan of educational investment was formulated to specify the kinds of educational programmes for adults which should be provided to advance the development of the Borders Region.

The plan includes the identification of areas where gaps or shortfalls in social, economic or educational provision deemed optimal for development were found, and the prescription of programmes to correct the deficiencies.

THE BORDERS REGION

In addition to the four counties of Peebles, Selkirk, Roxburgh and Berwick, the Borders Region includes the parishes of Stow and Heriot from Midlothian. The existing county structures have disappeared, but the region is subdivided into four districts which roughly approximate the geographic areas of the former counties. The new region has all the powers vested in a top tier authority by the Local Government (Scotland) Act, 1974.

The Borders Region is a land of contrasts. The horseshoe of hills which provides the watershed of the River Tweed and its tributaries almost defines the boundaries of the region but the western hill country with its steep-sided, flat-topped 'laws', lovely valleys and extensive forests is quite different from the low-lying merse of the Tweed to the east and the tabular moorlands running up to the Lammermuirs to the north. The textile burghs of the central valley contrast with the scattered villages of the east. The farms of the west are sheep and cattle farms while those of the merse

become increasingly arable in form toward the east, grains, potato and fodder crops predominating near the coast. And while the burghs of Peeblesshire and Selkirkshire have developed strong links with Edinburgh, the burghs of the two eastern counties have been further isolated by the closure of the Waverley railway and a reduction in bus services.

The main north-south routes which pass through the Border territory caused it to be a battleground through five hundred years of internecine warfare and raiding, at first between Scots and English, then between Scots and Scots, English and English or any combination of the two peoples. Today the highways which follow these routes should be a source of strength to the region, but more often they are simply arteries for through traffic. Even Borderers themselves use the roads to get out to the shopping and entertainment centres of Edinburgh, Carlisle and Newcastle, and no burgh has become the focal point for the region to unite it and provide the cultural and specialist services. On the other hand, its advantages include its freedom from the pollution and congestion of the cities and as it faces the responsibilities of regionalisation it may also count its smallness an advantage which saves it from the difficulties of dimension facing the Highlands region.

Despite its small size the geography and the bloody history of the Borders has created a region of small independent communities. The complex of authorities which controlled agencies in the Borders contributed to the fragmentation and confounded attempts to gather information specific to the region. In the field of health services alone no fewer than ten administrative bodies had responsibility for

the Borders and these were seldom coterminous and frequently included more populous areas outwith the region.

The whole area falls within the region administered by the South East of Scotland Hospital Board which is responsible for the hospital services. The general practitioner services of the area are administered by two administrative councils. Berwick, Selkirk and Roxburgh have one executive council, while Peeblesshire is combined with the Lothians. Three local authority medical departments administer the local authority medical services. Berwickshire is a separate local medical authority whilst Peeblesshire is part of the Lothian and Peebles authority. The implementation of the Social Work (Scotland) Act, 1968, saw the development of separate social work departments in Berwick, Selkirk and Roxburgh, whereas Peebles was combined with Midlothian.¹⁵

The divisions of the department of employment and of the youth services was even more confusing. Clearly, the redefining of boundaries for all services to coincide with regional and district boundaries wherever possible will prove to be a major improvement which should facilitate communication and reduce duplication.

The combining of related functions under major service committees as proposed in the working group report of the Scottish local authority associations¹⁶ will contribute further to this efficiency.

The textile industry brought industrial prosperity to the Borders and the quality of their products earned world reknown for

¹⁵Gruer, op. cit.

¹⁶The New Scottish Local Authorities: Organization and Management Structures. Report of a working group appointed by the Scottish local authority associations, Edinburgh: H.M.S.O., 1973.

Border craftsmanship. Then late in the 19th century the mills and farms began to mechanize and men were laid off. The long period of decline and depopulation for all four Border counties began. But quality products remain a tradition in the Borders. In recent years the sheep and cattle of the area have earned a reputation to match that of the textiles and the Borderers reputation for craftsmanship has attracted manufacturers of precision products.

attractive to industry.

Prosperity in the Borders Region will depend, at least in the short term, on these demonstrated strengths, expertise in farming and land management, a reputation for quality products and craftsmanship and an industrial base in textile manufacture. The light industries which have been attracted in recent years are providing badly needed diversity and male employment. If the Borderers can continue to attract industries of a varied character requiring male skilled and semi-skilled labour, the tide of emigration will be reversed.

SOCIO-ECONOMIC PROBLEMS AND LIVING STANDARDS

The debility of the Borders economy represents a classic example of the dangers inherent in industrial overspecialization. Agriculture claimed 13.2% of the workforce in 1968 and textile manufacture accounted for 32.1%.¹⁷ Both are declining industries.

Until recently reduction of the workforces of agriculture and of the textile industry were not accompanied by high rates of

¹⁷ Department of Employment, Edinburgh. Employment Exchange Statistics, 1968.

¹⁹ Scottish Development Department, 1968, 311.

unemployment in the Borders. Rather it resulted in emigration from the area. All too often those who left were the young men for whom there were few opportunities in the textile factories or on the increasingly mechanized farms. The age-sex balance of the population changed to the disadvantage of the area, the proportion of married women declined and birth rates fell. Without a pool of labour currently available the Borders became increasingly less attractive to industry.

The central government recognised the seriousness of the situation in the early 1960's and its concern was expressed in a White Paper, "The Scottish Economy 1965-70: A Plan for Expansion",¹⁸ and in the commissioning of a further study of the Central Borders which was undertaken by the Faculty of Social Sciences of the University of Edinburgh, under the direction of Professor P.E.A. Johnson-Marshall. The recommendations resulting from the latter study were embodied in the Scottish Development Department report, "The Central Borders: A Plan for Expansion".¹⁹ Although the remit of the latter study restricted the investigation to the counties of Peebles, Selkirk and Roxburgh, most of the conclusions and recommendations are applicable to Berwick.

In addition to the two major studies, local assessments were undertaken and development strategies drawn up for the burghs of

¹⁸ Scottish Office, op. cit.

¹⁹ Scottish Development Department, op. cit.

Earlston,²⁰ Hawick,²¹ Jedburgh,²² and Kelso,²³ and landward studies were completed for Berwickshire²⁴ and Roxburghshire.²⁵ All agree that the basic cause of the troubles in the Borders is the shortage of young male workers. All the plans call for the attraction of many thousands of immigrants to restore the region's appeal to industry and for the attraction of a diversified group of male-employing industries to retain this workforce. Strategies to accomplish these ends centre on improvements to the standard of living, especially housing, and on incentives to manufacturers.

Early successes in attracting new industry have surpassed attempts to house those willing to move to the Borders. Development plans are now in danger because housing and other basic infrastructure services are not keeping pace with industrial growth. To add to the conundrum, the textile and hosiery mills are re-equipping with faster, more efficient machinery which required male

²⁰ Berwick County Council, Report of the Planning and Development Officer. Earlston: Population and Development. Duns, 6 July, 1971.

²¹ Hawick Technical Working Party. Hawick: a plan for development. Roxburgh County Council, Hawick, 1973.

²² Jedburgh Technical Working Party. The Royal Burgh on the Jed. Roxburgh County Council, Newtown St. Boswells, September, 1964.

²³ Roxburgh County Planning Department. Burgh of Kelso Policy Statement. Roxburgh County Council, Newtown St. Boswells, January, 1971.

²⁴ Berwickshire County Planning and Development Office. A Rural Policy for Berwickshire. Berwick County Council. Duns, p. 25.

²⁵ Roxburgh County Planning Department. County of Roxburgh: Landward Community Development Strategy. Roxburgh County Council, Newtown St. Boswells.

rather than female operatives. Suddenly there is work in the Borders for men, there are men anxious to move there, and the region is unable to accommodate them.

Housing and transportation are the two weakest links in the chain of development elements officials in the Borders have been forging to reverse the decline of the region. Housing is scarce so that waiting time for a local authority house may be eighteen months or longer.²⁶ Many houses are old, poorly designed and lacking in basic amenities. Public transportation is limited to infrequent buses along the major roads, while backcountry rural areas may have no service whatsoever.

Cultural and specialist facilities are limited in the region. Borderers must travel to Edinburgh, Carlisle, Newcastle or one of the other major centres outwith the four counties for many such services.

Balanced against the negative items is the quality of life engendered by the natural setting and local traditions. The steep hills, the lush valleys and clean rivers provide a magnificent backcloth of beauty and tranquility. The colourful Border Ridings festival, the rugby and other sporting teams, the fishing, make this a pleasant place to live.

Primary and secondary school education compare favourably with other parts of Scotland, although some pupils in remote rural areas

²⁶ Border Regional Planning Unit. A Profile of the Borders 1974: interim report. Newtown St. Boswells, June, 1974.

are travelling longer distances as small rural schools close as a consequence of migration and reduced enrolments. Further education is centred in two of the major towns. Thus its usefulness is diminished and classes are underattended because of the travelling necessitated by a widely scattered clientele. There is no university within the Borders Region. Graduates of the Borders secondary schools continue their education in Edinburgh or at higher education centres further afield.

Regional government permits centralized planning of education for the four counties which provides new opportunities for re-organisation of school catchment areas. Centralized budgeting provides opportunities to initiate innovatory programmes, research and redistribution of finances to primary, secondary, further and other adult education. At first glance the opportunities for change appear to be very broad. In fact, however, the geography of the region permits little alteration of present rural education attendance patterns and plans drawn up by the Joint Educational Advisory Committee do not call for significant changes in the established provision.

CHARACTER OF BORDERS POPULATION

For eighty years migration out of the area has continued unabated and young men have been the most frequent migrants. In recent years a counter flow has partially offset this loss but the bulk of the immigrants have been of retirement age, thus they contributed no skills to the labour force, but added to the burden of the social services.²⁷ The age-sex structure of the population

²⁷Gruer, op. cit.

reflects these opposite migrations. The young men leave to find work not locally available and women of marriageable age are left behind to spinsterhood. The elderly come to live in a peaceful environment but often find inadequate housing, few amenities, poor transportation facilities and isolation. Their loneliness breeds depression and anxiety and increasing dependence on the medical and social agencies of the region.

Despite a pronounced and accelerating rural to urban migration over the past 100 years the population of the Borders counties retains a distinctly rural bias. Approximately 41% of the population live in villages, in hamlets, in small collections of cottages on estates or on individual farms.²⁸ The 59% who are urban dwellers live in the twelve major tourist, market and industrial towns, none of which is large enough to be classified as a large burgh.²⁹

The sex structure for each county is similar to that for Scotland as a whole,³⁰ but this fact by itself is misleading. This must be examined in conjunction with the age structure to gain an appreciation of the demographic problems in the Borders. Compared to Scotland each county has a markedly lower proportion of children (0-14 years) and young adults (15-44 years) and a higher proportion of the elderly (65 years+).³¹ Thus the age groups from which the

²⁸ Scottish Development Department, op. cit., p. 82.

²⁹ The Registrar General for Scotland, Edinburgh. Annual Estimates of the Population of Scotland, 1970. H.M.S.O., 1971.

³⁰ Scottish Development Department, op. cit., p. 68.

³¹ General Register Office, Edinburgh. Census 1961 Scotland. Vol. 3, Age, Marital Condition and General Tables. H.M.S.O., 1965, p. XLIV.

workforce must be drawn now and over the next decade and a half is underrepresented in the Borders. And since the birthrate is dependent on the young adult group there is no prospect of an upturn in this situation.

In addition to the migration out of the area there is a considerable movement of people within the four counties. This migration is primarily an abandonment of remote farm areas in favour of the burghs and the suburbs. A few areas have suffered greater population losses than others, however, and these are generally the higher areas of the south, west and north. A few lowland areas near burghs actually increased their population in the 1961-1971 intercensal period.³²

The social class structure of the Borders Region reflects the survival of the many great estates in this section of Scotland and the labour requirements of agriculture and the textile mills. Classes I and II of the Registrar General's classification are over-represented as are classes IV and V, but class III is under-represented demonstrating the low demand for highly skilled workers and semi-professionals on the farms and in the mills.

Throughout Scottish history the Borderer has been a special breed of man. His situation between two warring nations set a stamp of insecurity on his life and his reaction to this was to become a warrior bandit, a riever loyal to and dependent on family ties, but independent otherwise. The age of the riever has passed

³²General Register Office, Edinburgh. Census of Scotland 1971: County Reports. H.M.S.O., 1974.

but the Borderer retains some of the rugged independence and solitariness of that bygone age. Intense loyalties to burghal traditions are demonstrated annually in the ridings of the marches, in the separateness of each town and the failure to create a single important burgh for the region, in the intense rivalry on the playing fields and the unique mix of all classes on their Rugby Union teams. A major task of the new regional authority will be to coalesce these separate loyalties into a common affiliation to the Borders Region.

Major development plans thus far have failed to obtain wide support throughout the region. This is due to the intense local pride and isolation referred to above. The Johnson-Marshall plan received tacit support, but was never formally adopted by all the local authorities. Instead the independent burghs redoubled their efforts to attract industry and achieved significant gains which ran counter to the Johnson-Marshall proposals.³³ Many of the major towns prepared development plans of their own in co-operation with the Scottish Development Department, but these were not co-ordinated with one another or keyed into any overall development format. The organisation of the Peebles, Roxburgh and Selkirk Joint Planning Advisory Committee and the appointment of a Development Officer to serve this committee and a similar move by the Eastern Borders established first steps toward the correction of this lack of co-ordination. The establishment of a Joint Planning Unit for the new region provided the base for the co-ordination that was missing.

³³ Scottish Development Department, op. cit.

In preparation for the transfer of authority to the new regional administration in May, 1975, a Scottish Border Local Authorities Joint Committee was created and began accumulating data necessary to the centralized departments to be and formulating plans for the first years of the new authority.

SUMMARIZATION OF STATE OF DEVELOPMENT

The Borders Region is at a crossroads in its history. Regionalisation holds out the promise of prosperity through efficient, co-ordinated action under a strong regional government. A major development scheme has been outlined, the first stages of implementation have been initiated and some notable successes have already been recorded. Tweedbank, the major development between Galashiels and Melrose, planned as the trigger to regional development, is at last being laid out on the ground after years of legal delays.³⁴ Border Build-Up, the campaign to attract 25,000 new citizens has been remarkably successful and a waiting list of potential newcomers is on file. Several new factories have already established in the region adding needed diversity and male-employment to the industrial base. Road improvements are proceeding apace. Planning is well underway for the restructuring of services to conform to the geography and the needs of the Borders. But the old problems are still present. Parochial loyalties and jealousies persist. The population is less than 100,000,³⁵ considered by some

³⁴Borders Regional Planning Unit. The Central Borders: housing and industry survey. Selkirk County Offices, Galashiels, February, 1974, Addendum 1.

³⁵General Register Office, op. cit. Population Tables. p. 100.

authorities too small for viable regional government,³⁶ and is falling still. The age-sex balance of the population is disadvantageous; there are too few young people, particularly too few young men; there is an increasing disproportion of the elderly and consequent heavy demand for special services both statutory and voluntary. There is no central focus for the region and a consequent shortage of specialist and cultural facilities. Many parts of the area remain remote and isolated. There is an acute shortage of housing and much that exists is inadequate. Public transportation facilities are poor and deteriorating. The industrial base remains dependent on textiles and farming and both these industries are sensitive to market fluctuations. Students proceeding to higher education must leave the area to obtain their training and after graduating find limited opportunities to use their expertise within the region and hence leave to live and work and contribute their competencies elsewhere.

These conditions are examined in this study and the contribution present and potential of educational investment, particularly with respect to the education of adults, to development in the Borders, is evaluated. A programme of educational investment is proposed to maximize this contribution.

Much of the data used in the analysis derives from 1969 to 1971, the period of full-time research by the writer. It is used to establish the aberrant demographic conditions that characterize the region and contribute to its social and economic malaise. The

³⁶ Royal Commission on Local Government in Scotland 1966-1969.
Edinburgh, H.M.S.O., Cmnd. 4150, September, 1969, p. 1.

conditions have persisted, so that the description remains accurate and this is demonstrated by the frequent introduction of more recent statistics.

EVALUATION

As noted earlier, a number of schemes have been prepared with respect to the development of parts of the Borders Region. The Johnson-Marshall plan "The Central Borders - A Plan for Expansion" deals with the three counties of Peebles, Selkirk and Roxburgh. "A Landward Community Development Strategy" is a plan prepared by F. S. Constable, County Planning Officer for Roxburgh, suggesting community settlement policies to meet likely future population patterns. "A Rural Policy for Berwickshire" was prepared by Basil Knowles, the County Planning and Development Officer for Berwickshire and it sets out planning targets for designated sub-districts of the county. "Recommendations: Borders Region" is the first plan developed for the Borders Region as defined in the Local Government (Scotland) Act, 1974. It was prepared by the District Advisory Committee established by the Scottish Border Local Authorities Joint Committee. Each of these plans is examined and considered with respect to the problems set out above. Development plans for the major burghs are considered in this context also.

PROPOSAL

For each of the development plans studied a proposal for the allocation of educational investments deemed most likely to advance the plan efficiently and quickly, is set out. For the Borders Region a general proposal emphasising the education of adults component is put forward, which should yield good returns in terms

of contributing to district and regional development. Specifically the plan sets out the types of education required to realize the project proposals and the basis upon which these have been selected.

An alternative to these plans is also put forward which proposes that development effort be focused on agriculture and agro-industries rather than on town-based industrial development. Educational programmes for adults are proposed as the vehicle for the implementation of this proposal.

CONCLUSION

This study is based upon a theoretical framework for the evaluation of a community or region and for the specification of the optimum prescription of educational investments to contribute to its social and economic development. It proposes radical departures from present educational allocations and present development directions for the study region. It concludes with a pragmatic commentary with respect to the implementation of the proposals.

Chapter 1. A Review of the Literature

The General Problem

For two decades the literature of education and economics has featured an interest in the relationship between education and development. The thrust of this interest has been to substantiate that a relationship does exist and to devise ways in which the relationship might be qualified. The nature of the relationship has received far less attention and is less well understood. Yet it is precisely this nature which must be understood by those responsible for the allocation of resources at regional levels if they are to make decisions which optimize the returns in community and regional development for their educational investments.

This problem, which confronts administration in all development areas, is the general problem examined in this study; how can those responsible for educational planning and expenditure determine that all their investments in education will contribute to the development of their area?

No attempt will be made in this paper to construct a new theoretical instrument for the measurement of social and economic gains attributable to educational inputs. Many such instruments have been conceived in recent years. Rather, a framework already in use will be adapted to conditions in the Scottish Borders. A short review of the literature will suffice to indicate the range of approaches which have been devised to help educational planners to solve this crucial problem and will illustrate the appropriateness of the instrument selected for this study.

A Survey of the Relevant Literature

The second edition of Mark Blaug's annotated bibliography of works in the "Economics of Education", updates the 1966 inventory to July of 1969. It expands the list of items to 1,358 from the 800 contained in the first edition and the 420 contained in Blaug's original survey of 1964. Thus the 1964 to 1966 period produced almost 400 works on this subject deemed by Blaug to be worthy of inclusion and the 1966 to mid-1969 interval produced another 550.¹

The rapid growth of Blaug's bibliography by itself suggests the accelerating tempo of scientific interest in the economic effects of education in recent years.

Two other facts add emphasis to this rapid expansion. Blaug has confined himself, for the most part, to literature published in English, French or German or to articles for which English translations are available and only four of his 1,358 items appeared before 1900. His bibliography thus constitutes a compendium of 20th century writings in the economics of education, in these languages.

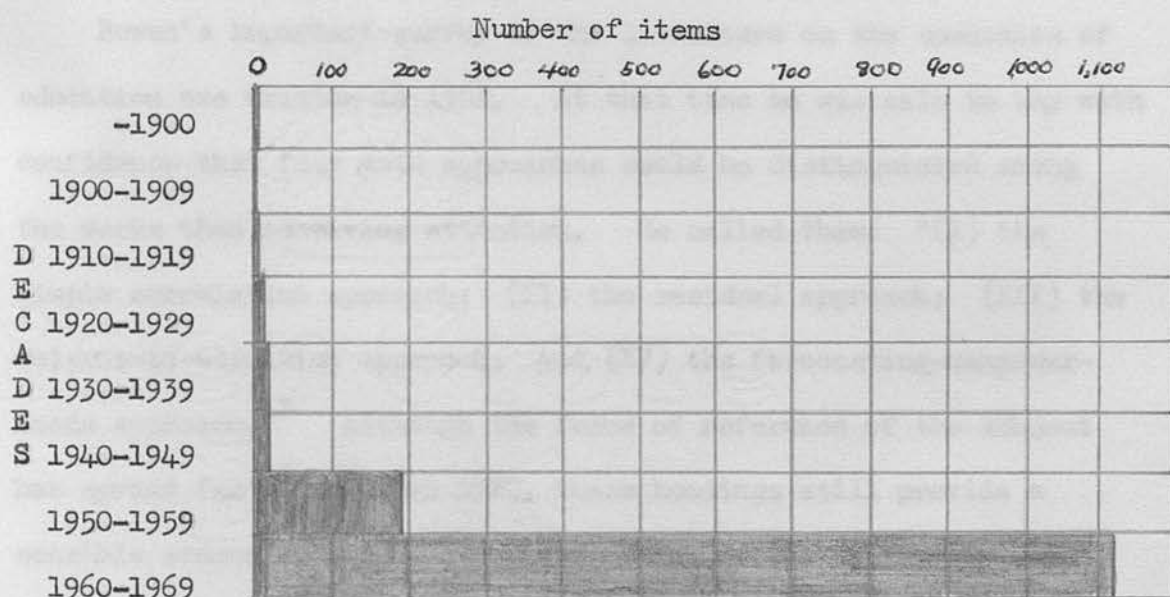
To say this conveys a little of the upsurge in interest in this subject in recent decades, but a proper appreciation of the amount of attention devoted by economists and others to education as an investment requires further enlargement. When the items in the bibliography are grouped into the decades in which they

¹Blaug, Mark. Economics of Education: A Selected Annotated Bibliography, Second Edition, Oxford: Pergamon Press, 1970.

appeared, decade productions may be represented graphically as in Figure II. It is immediately apparent from this representation that an overwhelming proportion of the items included fall within the two decades since 1950, almost 98 per cent of them, in fact.

Figure II

Time Spread of 1,358 Items Included in "Economics of Education: A Selected Annotated Bibliography", Second Edition, 1970, by Mark Blaug.



And over 82 per cent of all the items are represented by the bar for the 1960's. The first five decades of this century are credited with just two, four, seven, thirteen and fifteen items respectively, compared to 193 and 1,120 for the two decades since mid-century.

A multiplication of approaches to the subject has accompanied the proliferation of writings. Bowen's four major divisions² no longer embrace the full range of hypotheses being explored. Nor do economists have the field to themselves. Sociologists, planners,

²Bowen, W. G. "Assessing the economic contribution of education", in Blaug, M. (ed.), Economics of Education. Penguin Modern Economics Readings, Harmondsworth: Penguin Books, 1968, p. 68.

community developers, psychologists, political scientists and, somewhat reluctantly, educationists have entered the lists and all have brought biases and commitments to the fray. A natural consequence has been a gathering interest in multi-disciplinary studies, a trend which may well characterize the research of the 1970's.

Basic approaches to the economics of education

Bowen's important survey of the literature on the economics of education was written in 1962. At that time he was able to say with confidence that four main approaches could be distinguished among the works then receiving attention. He called them: "(I) the simple correlation approach; (II) the residual approach; (III) the returns-to-education approach; and (IV) the forecasting-manpower-needs approach."³ Although the frame of reference of the subject has spread far wider since 1962, these headings still provide a sensible avenue by which to begin a review of the field.

I The Simple Correlation Approach

The simple correlation approach involves the establishment of a relationship between aggregate educational and economic indices. Some of the earliest explorations into education as an investment in economic growth were inter-country comparisons founded on assumed or reasoned correlations of this kind. In 1958 Friedrich Edding compared educational expenditures and industrial development in a number of countries and showed that a positive relationship existed between the amount a country spent

³Ibid.

on education and its G.N.P. per capita.⁴ Four years later Edding, co-operating with Svernilson and Elvin, used enrolment ratios in a refinement of this technique.⁵ These studies were criticized because they failed to pay sufficient attention to the consumer pressures for more education that accompany increased prosperity. Schultz⁶ and others have pointed out that the evidence amassed by Edding and his colleagues could be used as readily as evidence of this phenomenon as to support their contention.

A logical variant of the simple correlation approach was to use the indices derived to compare conditions in a given country at different points in time. Schultz was among the early adherents to this tactic. His 1961 report treated education solely as a consumption commodity and is important in the development of educational economics theory largely because he found an income-elasticity of demand for education of 3.5⁷, sufficient, some would argue, to justify large increases in government expenditure on education as national income rises.

⁴Edding, Friedrich. International trends in educational expenditure, Kiel, 1958, cited in Vaizey, John. The Economics of Education, London: Faber and Faber, 1962, pp. 55-58.

⁵I. Svernilson, H. L. Elvin, F. Edding, Policy Conference on Economic Growth and Investment in Education, II. Paris: O.E.C.D., 1962.

⁶Schultz, T. W. "Education and economic growth", in Yearbook of the National Society for the Study of Education, 1961, p. 60, cited in Bowen, W. G. op. cit. p. 70.

⁷Ibid. Robert H. "Technical change and the aggregate production function", Review of Economics and Statistics, Vol. 59, No. 3, August 1977, pp. 312-34.

A third form of this approach is the inter-industry or inter-firm correlation method which attempts to relate the profitability of an industry or corporation to the educational attainment of the workers employed or to the proportion of gross revenue devoted to research and development. Studies of this kind have encouraged many private companies to spend more of their profits on research and in-service training.⁸

II The Residual Approach

Many economists were attracted to investigations of the relationship between educational provision and economic growth because of the failure of their classical input-output concepts to explain the increases in production which have been so marked in this century. So long as they employed models which measured capital and labour in terms of physical inputs of plant and labour 'bodies' alone, a portion of the increased production was unexplained and had to be labelled as 'residual' growth. Solow's analysis of productivity growth in U.S. industry between 1909 and 1945 revealed the inadequacy of such a model in bold relief by determining a 'residual' for this long and important period of 87.5 per cent of the total increase.⁹ Refinements of the residual technique have been devised by Denison and others in which a number of inputs have been identified, measured, and subtracted from the total growth

⁸ Jewkes, John. "How much science?", Economic Journal, March 1960, pp. 9-10, cited in Bowen, op. cit., p. 72.

⁹ Solow, Robert M. "Technical change and the aggregate production function", Review of Economics and Statistics, Vol. 39, No. 3, August 1957, pp. 312-30.

rate. The remaining residual Denison attributes to advances in knowledge.¹⁰

'Residual' theory has played a large part in the literature of the economics of education. This importance will be recognized by more detailed treatment in the consideration of the economic benefits of education, below.

III The Direct Returns-to-Education Approach

Perhaps the most obvious way of evaluating the economic benefits derived from education is to compute average lifetime earnings for persons with various amounts of schooling and attribute the differences to educational investment. If the costs of acquiring the schooling are then determined, an annual rate of return can be calculated.

Studies following this line of approach have been based on two quite different assessments of the returns to education, one concerned with the personal gains of the student and the other concerned with the total appreciation to the national economy. Estimations of the former assessment take into account only private costs (including income foregone if this is accepted as a valid cost) whereas the latter assessment requires the inclusion of all expenditures whether private or public. In either case this approach is simply one of cost-benefit analysis. Education is treated as a purchase from which a stream of earnings is expected

¹⁰Denison, Edward F. "The sources of economic growth in the United States and the alternative before us", Supplementary Paper No. 13, published by the Committee for Economic Development (New York, 1962), cited in Bowen, op. cit., p. 75.

in the future; the total value of these earnings is estimated; a discount rate is established according to business capital yields; and the net present value of the educational purchase is derived. This procedure, almost the antithesis of that employed by Schultz in his 'commodity measurement' studies, is equally vulnerable to criticism for its failure to consider the consumption value intrinsic to any educational experience.

Initially, direct-returns studies assumed a 'holding other things constant' posture and attempted to establish direct correlations between 'extra' earnings and 'extra' schooling,¹¹ but more recently effects of intervening factors such as occupational choice¹², in-service-training¹³, inheritance, interracial and interregional differences¹⁴, have widened this corridor of investigation and severely qualified the uncomplicated conclusions of the early studies. The latter studies have involved researchers from a number of disciplines and stimulated interest in the social benefits generated by education.

¹¹Glick, P. C. and Miller, H. P. "Education level and potential income", American Sociological Review, June, 1956, reprinted in The Sociology of Education. A Source Book, Bell, R. R. (ed.), Homewood, Illinois: Dorsey Press, 1962, pp. 167-74.

¹²Duncan, O. D. "Occupational components of educational differences in income", Journal of the American Statistical Association, December, 1961, pp. 783-92.

¹³Reder, M. W. "The theory of occupational wage differentials", American Economic Review, December, 1955, pp. 833-54.

¹⁴Becker, G. S. Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education, Princeton, New Jersey: Princeton University Press, 1964.

The direct returns-to-education approach began as the most straightforward method of attributing gain to individuals and society from educational investment. It has been complicated by the debate over the weighting of the consumption and investment components of education, by the question of valuation of external benefits, by the questioning of income as a measure of productivity, by differences among economists about the appropriate discount factor to apply against rates-of-return and by the introduction of numerous intervening variables. Nevertheless its advantages continue to outweigh its perplexing disadvantages: it permits direct comparisons of costs and benefits; it enables quantifiable comparisons to be made between alternative forms of investment; and it provides common ground for inter-disciplinary research.

IV The Forecasting-Manpower-Needs Approach

As a prescription for growth no other basic approach offers the apparent advantages of this method. At the most primitive level this theory holds that it is merely necessary to project the manpower required for a desired expansion of selected sectors of the economy and then to programme the educational system to provide the manpower at the appropriate time. It is not a new device. Educational systems have always been geared to some extent to the provision of personnel required by their societies. But the new emphasis, particularly in developing countries, on the planning of provision according to the dictates of manpower forecasts, has tilted the balance markedly from the consumption benefits which formerly weighed heavily with educational authorities to investment considerations. A second new factor has been the rapid development of sophisticated techniques for

estimating the prospective demands of the economy for persons with specific kinds of training.

The O.E.C.D. has been especially active in commissioning manpower forecasting studies. Their Mediterranean Regional Project¹⁵, in particular, has had a profound effect on manpower theorizing. This study exemplifies the attractions of this approach, the preparation of quantitative manpower targets and the laying down of frames of reference which limit and direct policy decisions. Despite the inadequacy of early forecasts to accurately predict the complex of interrelated factors that impinge on future national manpower requirements the value attached to such projections is impressively validated not only by the number of developing countries which rely on them but by the use made of them in highly developed countries as well, as evidenced by such studies as the U.S. Manpower Reports of the President.¹⁶

Regional studies and projections based on careful analysis of individual firms are the most promising new directions being explored in the manpower projection field. The California State Committee on Public Education commissioning of a report for their guidance¹⁷ may well have established a precedent that will be

¹⁵O.E.C.D. The Mediterranean Regional Project; Yugoslavia; Italy; Greece; Spain; Portugal; Turkey, Paris: O.E.C.D., 1964.

¹⁶United States Department of Labour. Manpower Report of the President and A Report on Manpower Requirements, Utilization, and Training, by the United States Department of Labour, Washington, D.C.: 1963, and subsequent reports to Congress as required by The Manpower Development and Training Act, 1962.

¹⁷De Watt, N. Manpower Guidelines for Educational Policy Planning in the State of California, Consultant's Report prepared for the State Committee on Public Education. Berkeley, California: State Committee on Public Education, 1968. (mimeographed).

followed by educational authorities throughout the U.S. and in many other parts of the world. Equally, Gascoigne's¹⁸ reflective analysis of the manpower projections of an individual company, notwithstanding the failure of his predictive tools, heralds a micro-study use of this approach which has much to offer.

None of the four basic approaches provides an unequivocal statistical relationship between education and economic benefits and none offers a flawless technique for determining the optimum amounts or mix of educational elements, but the development and application of the many variants of each have established that different educational policies have different economic consequences and have demonstrated, however imperfectly, that these consequences are predictable.

Changing perspectives

M. J. Bowman, in her 1966 scatter-gun review of human investment studies, makes the point that the 1960's marks the decade in which the economics of education became more than a "collection of techniques of estimation and special isolated investigations"¹⁹ and entered the realm of 'genuine economics'. The particular leaven she credits for the transmutation is "the building up of empirical-analytical work close to the cores of theoretical

¹⁸ Gascoigne, M. "Manpower forecasting at the enterprise level: a case study", *British Journal of Industrial Relations*, March, 1968, pp. 94-106.

¹⁹ Bowman, M. J. "The Human Investment Revolution in Economic Thought", in Blaug (1968), *op. cit.*, p. 103.

economic systems."²⁰ She then proceeds to document in a most thorough manner the new direction human investment theory has taken under the influence of the 'pure' economists.

The new direction is in fact not a 'change' in direction but an increased emphasis on the mathematics of economics. It has resulted in a mushrooming production of mathematical planning and analysing models, an increased involvement of econometricians in human investment studies and the introduction of systems theory to educational planning. At the core of the new concern is cost-benefit analysis, the systematic comparison of the costs and benefits of investments in human beings. The great proportion of the new work thus derives from rate-of-returns studies and concomitant plans for optimum resource allocation. Full circle? Not really; for Bowman is intent on showing that economic interest now centres on individual acquisition of skills and competencies viewed as "potential future income streams"²¹ rather than on education as an 'industry'.

Much less attention is paid to the consumer component than previously because "the main concern of the investment orientation to education is with the formation of human capital that will yield flows of services that are transferable and could thus be measured in 'rental' or 'hire' terms".²² But the consumer component of education is not ignored in the new studies. Wherever a value can

²⁰Ibid. p. 102.

²¹Ibid. p. 104.

²²Ibid. p. 105.

be put on consumption in money terms, wherever it contributes to income by reducing the services that must be rented from others, wherever external benefits accrue to society which may be given defensible monetary values, wherever occupation or satisfactions render overt prices inappropriate, investigators are working to develop formulae establishing the associated cost-benefit relationships. "In fact there is a ferment on all these fronts, and treatment of physical capital is being drastically overhauled as part of the modern effort to analyze factor substitutions and complementarities and the processes of economic growth and development in a dynamic world."²³

Bowman distinguishes four foci of current research into human investment economics:

(1) global or aggregative measurements of the magnitude of human capital formation and of its contribution to national income growth; (2) applications of micro-decision theory to analysis of demands for schooling and supplies of educated people, career choices, factors that determine the nature and extent of on-the-job training, income and opportunity distribution, and constraints on mobility and freedom of choice; (3) contemporary and a few historical investigations into determinants of demands for educated or trained people, changes in those demands with economic development, and dynamic interactions between human-resource demands and supplies; (4) methodological research in the development and application of systematized procedures and criteria for educational planning.²⁴

(1) Aggregate Measurements

This focus parallels Bowen's second category, the residual approach. Bowman credits the discovery of the 'residual' with

²³Ibid. p. 106.

²⁴Ibid. p. 106 f.

convincing economists of the importance of studying education. She contends, too, that aggregate correlation measures of human capital and G.N.P. pervade all human investment economics.

(2) Investments in Human Beings and Micro-Decision Theory

Bowman's second focus is rate-of-returns studies, but the concentration she sees in contemporary research is on the framing of decision theories that may be empirically tested. The emphasis has revolved from investigations of the total economy to measurements of the effects of pressures and constraints imposed on private education and training choices by institutional and social influences. She shows that the effects on the benefits derived from schooling of innate ability, social status, teacher salaries, school size, race and region, type of school, college or university attended, migration, vicarious satisfactions, dropping-out of school, on-the-job training and a host of other factors, feature present human investment interest. She especially cites the work of Becker and Mincer²⁵ as leading the way in the development of analytical tools for this kind of investigation.

Becker and Mincer use an opportunity-cost concept in "Dropouts and the Unemployed". Since this is a cost-benefit device it fits Bowman's contention regarding the new direction of human investment economics. It derives from the basic economics tenet that all forms of investment involve a sacrifice of present consumption in order to secure future benefits in the form of higher levels of output or income. Hence, the value of the present consumption

²⁵Becker, Gary S. and Mincer, Jacob. "Dropouts and the unemployed", Journal of Political Economy, vol. 73(1965) no. 2.

given up is the cost of the investment in future earnings (or in personal human-capital formation). It is in the testing and refining of such techniques in a host of institutional settings that Bowman expects the major gains of present research to lie.

(3) Human Resource Demands, Supplies and Development

The title Bowman gives to her third focus reveals the orientation she would prefer the manpower-forecasting approach to assume rather than the orientation that characterizes the actual state of affairs. Bowman wants researchers to go beyond simple projections of past trends and searches for coefficients to relate cross-national comparisons, in the design of manpower projections. She suggests the study of what she calls "interactive development processes".^{26*} Some work has been done of this kind and recent work in this area too, has featured an investment view of human resources.

(4) The Economics of Educational Planning

It is studies focused on the economics of educational planning which have pushed the new perspective the farthest. Bowman comments on three recent studies which feature a joining of rate-of-return and manpower methods and which combine cost-benefit analysis with systems analysis. These studies demonstrate the breadth of coverage of current investigations into the economics of education.

²⁶Bowman, op. cit. p. 124.

*relationships between human resource demands and supplies, i.e. between the kinds of social institutions that arise in a country and the kinds and amounts of private and public investment in the development of human resources in that country.

The first study, by Jean Benard²⁷ states inputs and outputs in monetary terms, calculates discounted lifetime earnings in the light of income changes through the life span and develops a linear programme to solve for maximization of benefits.

The second, by Irma Adelman,²⁸ is more in the tradition of manpower studies, but it too, employs linear programming to achieve its objectives of maximized G.N.P., maximized growth of G.N.P. and minimized foreign capital inflows. The model allows for varying mixes of manpower in a given industry, for interaction between demand for and supply of human capital and compares the marginal social benefit of different kinds of education to their 'opportunity costs'.

The third study, by Samuel Bowles²⁹ deals only with the education sector. Its importance lies mainly in its treatment of the many restraints that impinge on forecasting models and its success in identifying the critical ones. In addition it demonstrates the depth that sophisticated models can probe into the

²⁷ Benard, Jean. "General optimization model for the economy and education", Mathematical Models in Educational Planning, O.E.C.D., Paris, 1967, pp. 385-412, cited in Bowman, op. cit. pp. 130 f.

²⁸ Adelman, Irma. "A linear programming model of educational planning - a case study of Argentina" in Adelman, I. and Thorbecke, E. (eds.), The Theory and Design of Economic Development, Baltimore: The John Hopkins Press, 1966, pp. 385-412, cited in Bowman, op. cit. p. 130 f.

²⁹ Bowles, Samuel. "A planning model for the efficient allocation of resources in education", (mimeographed) cited in Bowman, op. cit. p. 130 ff.

educational sphere, for Bowles compared the options provided by different educational technologies to weigh the economic costs and benefits each represented.

Bowman concludes her survey by commenting on still more complicated cost-benefit models currently being developed and on the growing need for co-operative studies by teams of economists, sociologists and educationists.

While some researchers have been bringing the whole weight of economic theory to bear on educational costs and benefits, and in the process have developed models and postulates beyond the ken of the average teacher, others have been intent on interpreting the underlying concepts to educational administrators and practitioners. Although the bulk of this latter effort has been directed toward the developing countries, the usefulness of the studies has been by no means exclusive to this group of nations. Indeed, some theorists have worked consistently toward a generalized conception that would have universal applicability. Foremost among this company has been T. W. Schultz. His message has been intrinsically simple. Education confers benefits, some of which are reflected in increased productivity. Education may thus be treated as an investment for which profits can be measured.

Naturally enough, educationists have always accepted that education was 'good' for society. But some have feared the consequences of a 'commodity' treatment of it. Such fears have largely been dispelled. In the professional languages of economists and educators alike 'the economic benefits of education' has become

an accepted cliché. What are the main contentious issues which have received sufficient attention to reduce a controversial theory to hackneyed acceptance in so short a time?

Economic Benefits of Education

Although the economic benefits of education accruing to the nation and to the individual educated have been studied in depth for only a short time, economists since Adam Smith have recognized their existence. Smith included "the acquired and useful abilities of all the inhabitants or members of society" in his concept of "fixed capital".³⁰ Theodore Schultz, more recently, proposed that "people enhance their abilities as producers and consumers by investing in themselves"³¹ and on the basis of this proposition set out a triad of hypotheses which have become the basis of a new approach to the solution of a group of problems which have puzzled economists for decades.³²

The dual benefits of education, via production and consumption, emphasized by Schultz, is echoed by Malassis.

Education has a dual role: it increases productive capacity; it contributes to the individual's potential and satisfies his needs to know and explain.

³⁰Smith, Adam. The Wealth of Nations, Modern Lib. edn., New York, cited in Schultz, T. W. "Investments in Human Capital", The American Economic Review, LI (March 1961), p. 2.

³¹Schultz, T. W. The Economic Value of Education, New York: Columbia University Press, 1963, p. x.

³²Ibid., passim.

Most often education is at once a form of investment and a form of consumption, and this dual aspect of education, as an instrument for economic development and as an agency for personal improvement must never be forgotten.³³

Schultz divides the consumption value of education to provide a threefold classification of the benefits of education. He says that the benefits may be filed into three conceptual boxes: present consumption such as immediate enjoyment of new information, future consumption such as appreciation of good books in later years, and future producer capability.³⁴ The latter two boxes thus represent forms of investment, one an investment in consumption and the other an investment in production. But Schultz points out that, "Only if schooling increases future productivity and earnings do the contributions of schooling become a source of measured economic growth."³⁵

Despite his insistence on the value of consumption earnings such as satisfaction, enjoyment and appreciation, Schultz is compelled to admit that presently no empirical methodology exists for the measurement of this form of earnings and thus only the returns to the third classification of schooling benefits have been calculated to date. This does not justify the dismissal by economists of the real earnings of education represented by the first two categories, but argues for a reformulation of received economic theory which will take it into account. In the meantime,

³³ Malassis, L. Economic Development and the Programming of Rural Education, Paris: U.N.E.S.C.O., 1966, p. 10.

³⁴ Schultz (1963) op. cit., p. 38.

³⁵ Ibid. p. 39.

he maintains, it must be recognized that the true benefits of education are understated in any estimate based on future productivity alone.³⁶

In his proposition that people enlarge their production and consumption faculties by investing in themselves, Schultz specifies schooling as the largest form of investment in human capital. The capabilities thus acquired, he insists, are far from small. "They are of a magnitude to alter radically the usual measures of the amount of savings and of capital formation that is taking place. They also alter the structure of wages and salaries and the amount of earnings from work relative to the amount of income from property."³⁷ Schultz maintains therefore, that unresolved puzzles concerning economic growth not attributable to inputs of capital and labour, and concerning changes in the distribution of personal income and in the value of labour may be explicable in terms of investments in human capital. It is the productive essences of what has traditionally been identified simply as capital and labour which are viewed in a new light. Capital and labour are no longer seen as simple sums of units of constant worth, but as improvable dynamics of economic growth. Adam Smith's 'fixed capital' thus becomes a kinetic value constantly increasing or decreasing according to the current stock of 'acquired and useful abilities' of the nation's citizens.

³⁶ Ibid. p. 56.

³⁷ Schultz, Theodore W. "Reflexions on Investments in Man", The Journal of Political Economy, Lxx (Supplement, October 1962), p. 1.

This new interpretation purports to account for a large segment of the portion of Gross National Product increases not attributable to direct inputs of capital and labour, the segment usually referred to as the residual proportion.

To establish the economic value of education at a specific time and in a specific place it is necessary to consider the demand for education and the supply of schooling available from an investment viewpoint. The saleable worth of education in the market place will determine its economic value, but this will be tempered by the immediately available supply of qualified personnel and the productive capacity of the school system. Obviously, the salary offered to personnel critically needed by a society, but in short supply, will be high, but the economic benefits derived by the society from the production of these workers will be correspondingly important. There is nothing new in this. The value of a worker is simply computed with reference to the marginal productivity of the last worker added to the workforce. But this fails to account for increases in productivity which arise when workers with more education are employed to do the same jobs. Consideration of the effect of improvement of the workforce is the new factor in economic analysis of investment in man. There are many strings to education's bow for improvement of the workforce. Three of the most obvious are research, the cultivation of latent talent and improvement of the level of job skills. A number of studies in recent years have devised methods of measuring the contributions of some of these.

A major enterprise of the educational establishment has always been research, but lack of information respecting the returns from research has hampered assessments of its influence on economic growth. Recent studies of non-university research have revealed costs and measurable benefits which indicate that research earns a very high rate of return indeed, particularly agricultural research. There is every reason to believe that on-campus research too is an important factor of the increase in Gross National Product for so long labelled "residual".³⁸

From the standpoint of lifelong earnings, Schultz contends³⁹, the costs of education, as conventionally computed, represent a very attractive investment on an individual basis, even if all school expenditures are borne by the individual student. Conventional audits of schooling costs, however, ignore the largest expense of all, the earnings foregone by the student during the period of his schooling. Nevertheless, even when these opportunity costs are added to the educational bill, investment in schooling still offers an attractive rate of return both to the individual and to the economy of which he is a part. Growth in Gross National Product alone substantiates the soundness of this kind of investment from a national point of view, but the student and the Gross National Product are not the only beneficiaries of the improved education of the individual. Research carried out by university students frequently provides benefit to all mankind. Closer to home, neighbours and their children may benefit from association with educated and cultured products of the nation's schools. Mr. Average

³⁸Schultz (1963) op. cit., p. 39.

³⁹Schultz (1963) op. cit., p. 5.

Citizen benefits through lower taxes, better services and greater welfare benefits made possible by the higher productivity of the nation and the correspondingly higher taxes of the better paid, more highly educated in the society. Co-workers enjoy the benefits of improved technology and increased production made possible by the expertise and technical innovations of their highly skilled associates and employers reap the rewards of greater profits from this improved performance. Society in general enjoys a multitude of widely diffused benefits in the arts, in politics, in charitable foundations, springing from the impetus vocational and avocational of those whose education has developed in them the appreciation, the interests, the concerns and the abilities to make known and available to others the aesthetic and humanitarian values of their heritage.

According to Schultz⁴⁰, the rate of return on investments in education at all levels remains attractive by comparison to alternative forms of investment even when earnings foregone are included

Investment in education is one of the most fruitful investments, quite apart from the fact that it is a social investment, it does not follow, the author argues, that all investment in education is profitable. To the extent that educational expenditures are directed towards areas of research which might be of use in the future, the investment is profitable. But more productive investment in education, or other highly productive investment in education, will not necessarily inhibit growth. ... A critical issue is the extent to which education of a wrong type may hinder or even retard economic development, especially in societies at lower stages of development.

Quoted from U.N.E.S.C.O., International Institute for Educational Planning, *Survey of Educational Planning*, Vol. I - General Survey, 1964, pp. 24, 25.

⁴⁰ Schultz (1963) op. cit. p. 5.

in the costs³⁶, but, in high income countries at least, the rate of return to the costs of completing the first eight grades is higher in general than is the rate of return to subsequent schooling. This may be attributed in part to the fact that no income is lost by elementary school students in high income countries and in part to the great differential in earnings between elementary school graduates and the almost-unemployables with fewer than eight years of schooling. When consumption benefits and benefits captured by people other than the student and his family are added to the returns accruing to the student, the advantageous rate of return to primary schooling compared to specialized advanced education becomes even greater.

³⁶Skorov, while not disputing the potential of educational investments judiciously selected, assumes the role of the caveator in summing up the views presented at the International Symposium on Manpower Aspects of Educational Planning. He states,

While there is no question that education is an essential ingredient of economic development and can be a very fruitful investment, quite apart from being a fundamental human right, it does not follow, the participants warned, that all investment in education contributes to development. To the extent that educational expenditures in particular directions absorb resources which might be alternatively used for financing more needed and more productive types of education, or other highly productive development efforts, this may actually inhibit growth. ... A related issue is the extent to which education of a wrong type may reinforce and amplify certain anti-development attitudes which are often encountered in societies at lower stages of development.

Quoted from U.N.E.S.C.O.: International Institute for Educational Planning, Manpower Aspects of Educational Planning. Vaillant-Carmagne S. A., Liege, 1968, pp. 28, 29.

That economic benefits are derived from schooling by the student and by the state is no longer questioned. Only the extent of these benefits and their importance in solving a number of economic riddles remain in doubt. As mentioned earlier, Theodore Schultz has formulated hypotheses with respect to three of these conundrums.

1. Based on the assumption that the fundamental motives and preferences which determine the ratio of all capital to income remain essentially constant, the hypothesis here advanced is that the inclusion of human capital will show that the ratio of all capital to income is not declining. Producer goods - structures, equipment and inventories - a particular stock of capital, has been declining relative to income. Meanwhile, however, the stock of human capital has been rising relative to income. Have the underlying decisions that account for this shift been motivated by differences in the rate of return? The key, however, is: If the ratio of all capital to income remains essentially constant, then the unexplained economic growth originates out of forms of capital that have not been identified and measured and consists mainly of human capital.

2. The next critical assumption is that the economic capabilities of man are predominantly a produced means of production and that, except for some pure rent (in earnings) for differences in inherited abilities, most of the differences in earnings are a consequence of differences in the amounts that have been invested in people. The implication of this assumption is that the structure of wages and salaries, which has long baffled economists, is determined in the long run by investment in schooling, health, on-the-job training, and in searching for information about job opportunities, and in acting on it.

3. In analyzing the personal distribution of income, based on the assumption that the rise in the investment in human capital relative to that invested in non-human capital increases earnings relative to property income, and that the more equal distribution of investments in man equalize earnings among human agents, the hypothesis here proposed is that changes in income transfers, in progressive taxation, and changes in the distribution of privately owned wealth have been overrated as factors in altering the personal distribution of income.⁴¹

⁴¹Ibid. pp. 64-65.

In these three hypotheses, Schultz sums up the new direction taken by educational economists over the past ten to twenty years. It is assumed that classical economic theory was basically correct, but insufficiently explicit. Capital must be interpreted as including human capital as well as material capital. 'Residual' growth is then largely attributable to human capital accumulation. It is assumed that human capital accretion will result from investment in programmes which improve man's understanding of profitable tasks or which increase his capability to accomplish them. Finally, it is suggested that observed trends toward greater equality in income are the results, in part, of investments in human capital. These three hypotheses provide the foundation for much of the educational-economic reasoning of the 1960's and for the planning framework upon which this paper is based.

Investing in Human Resources for Economic Development

Considering the volume of evidence amassed over recent years stressing the rewards a nation or region derives from planning educational investment to subserve economic expansion, and the increasing refinement of techniques for detecting shortfalls and imbalances in provision, the question naturally arises why so few attempts at comprehensive programmes of this kind have been made in the developed countries. The answer derives from national histories, from political ideologies and cultural heritages as much as from pragmatic financial considerations. Developing countries, beginning from a base of mass illiteracy and technological primitiveness, their indigenous educational and economic traditions destroyed by the imposition of colonial systems, have had to start from near the zero development point. Developed

countries, despite their rich supplies of human capital and educative machinery, have been constrained by established practices, inflexible statutes and prejudices. Even the human capital and educational facilities already developed have often operated to retard progressive change rather than accelerate it. Cultural pursuits, welfare and an endless list of public services compete with education for scarce human and financial resources in an advanced modern society. All have well-entrenched claims to a share of the public purse. An increased allocation to any of them is more dependent on an increase in national revenue than on reapportionment of existing funds. So must it be with education. If educational investment is to play a larger role in economic development, it must do so by a reallocation of existing revenues to the generation of the critical human resources required for the economic development planned or by establishing its case for a greater proportion of public revenue on the basis of the social, cultural, health and recreative benefits accruing from its consumption component. Certainly, manpower specifications cannot casuistically be decreed in a democracy. Individuals must retain the right to choose the careers they will seek. Organizations must retain the freedom to lobby for larger slices of the national pie for the causes they espouse. At the same time those responsible for educational provision must be permitted the responsibility to decide the division of funds available to them which represents the optimum allocation in terms of all the information at their command.

Traditionally education authorities have made provision for the dissemination of knowledge and, more recently, for the teaching of skills, according to the dictates of established practices and

overt demand. The idea of tailoring educational provision to the specific social and economic needs of the authority area, or according to cost-benefit analysis, has attracted wide attention for less than two decades. The essential elements of such an approach were present in economic theory, but most economists considered repugnant the weighing of human potential as a form of capital and shied away from those theorists, like Adam Smith⁴², H. von Thünen⁴³ and Irving Fisher⁴⁴, who favoured the inclusion of human capital in the summation of a nation's wealth. Then too, few economists had concerned themselves with the mundane considerations of educational programming. Nor did educationists welcome attempts of economists to quantify the worth of their endeavours. A major change in attitude on both sides awaited a new set of conditions.

The sudden emergence of African nations from colonial status after World War II presented the new situation. Development planners were faced with poor but ambitious, young countries looking for a key to unlock the wealth of their resources. Their systems of local trade, crafts and education having been overridden by the colonial power, they possessed little or no industry or commercial organisation. They lacked the complex social and cultural facilities of modern states. Politically, socially,

⁴²Smith, op. cit.

⁴³Thünen, H. von (1875) Der isolierte Staat, cited in Schultz, T. W. "Investment in Human Capital", in Blaug, M. Economics of Education I, Penguin Modern Economics Readings, Harmondsworth: Penguin Books, 1968, p. 15.

⁴⁴Fisher, Irving. The Nature of Capital and Income, New York: MacMillan Company, 1906, cited in Schultz, Ibid.

culturally, educationally, they were at a primitive level. But they recognized the advantages enjoyed by the developed nations and they were in a hurry to close the gap.

Economists, educationists, manpower specialists and development planners met on the common ground of the developing nations' enigma. Out of this consortium evolved a new appreciation of an old concept, a "generalized capital accumulation approach to economic development".⁴⁵ Today it would be difficult to find an underdeveloped nation anywhere in the world which has not devised a programme of development on the basis of this appreciation of the contribution of human capital to total national resources.

The essence of (the new approach) is to regard 'capital' as including anything that yields a stream of income over time, and income as the product of capital. From this point of view, as Fisher⁴⁶ pointed out, all categories of income describe yields on various forms of capital, and can be expressed as rates of interest or return on the corresponding items of capital.⁴⁷

The unified approach thus developed simplified the task of measuring returns to human resource investments. The costs of obtaining any skill or expertise which yields an income may be determined and compared to the return it yields. Investment in that item is worth while if the capital accumulation derived exceeds the purchase cost.

⁴⁵Johnson, H. G. "Towards a Generalized Capital Accumulation Approach to Economic Development" in Blaug, op. cit., pp. 34-44.

⁴⁶Fisher, op. cit.

⁴⁷Johnson, op. cit., p. 37.

Social and cultural additions represent returns in the consumption sphere. Health improvements overlap the two dimensions of consumption and investment. Thus Johnson extends the concept:

By extension, the growth of income that defines economic development is necessarily the result of the accumulation of capital, or of 'investment'; but 'investment' in this context must be defined to include such diverse activities as adding to material capital, increasing the health, discipline, skill, and education of the human population, moving labour into more productive occupations and locations, and applying existing knowledge or discovering and applying new knowledge to increase the efficiency of productive processes.⁴⁸

Even this inclusive definition did not really break a great deal of new ground. Rather, it synthesized previous approaches and reconciled classical theory with empirical evidence of the shortcomings of conventional measures of capital and labour. Nevertheless, it relied for application on concepts and indices already accepted by practising economists and planners. What are these concepts and indices?

Concepts of human resource development evolve from an analytical approach to returns accruing to the economy from investments in man. Thus early theorizing followed an "a posteriori" direction of analysis. The human resources potential of a community or nation was measured in terms of physical strength, health and education possessed and on the basis of indices derived from the "a posteriori" computations schemes were devised for the prediction of future returns to further investment in human capital.

⁴⁸Ibid.

Measurements of returns on educational investments in human resources may take several forms. On a national basis the relationship between expenditures on education and growth in income or physical capital formation may be determined over a period of time. Alternatively, a "residual" measurement approach may be used to determine the contribution of education to Gross National Product. Direct calculations of rate of return from expenditure may be made for the lifetime earnings of sample individuals, or intercounty correlations of school enrolment ratios may be compared with the corresponding Gross Regional Products and the Gross National Product.

The residual measurement approach involves the determination of that proportion of Gross National Product increase which is not attributable to increases in classical measures of capital and labour. This residual growth may be a consequence of many factors, but the most important contributors are likely to be technological change, improvements in the quality of the labour force resulting from education, advanced health standards and shorter working hours, economies of scale and advances in knowledge. A growing body of informed opinion now accepts that improvement of labour through education and advances in knowledge are the most important of these.

The most important indicators of human resource development are those which measure the stock of human capital available in the region and those which measure additions to this stock, that is human capital formation over a specified period. Measures of available human resources include head counts of present personnel

in high-level occupations such as teachers, engineers, dentists, physicians and scientists per 10,000 of total population, and estimates of potential additions frequently employ comparisons of present enrolments at the three educational levels to the total populations in the comparative age groups.

Current orientation of higher education in the country or region is another valuable indicator of human resource development. This may be determined by comparing the percentage of students enrolled in third level studies in scientific and technical faculties to those enrolled in the humanities, arts and law during the same period.

Useful indices of the level of economic development include the Gross National Product or Gross Regional Product per capita and the percentage of the population engaged in agricultural or in primary occupations.

The extent of the nation's or region's financial commitment to education may be gauged by determining what percentage of the national or regional income is devoted to public educational expenditure and comparing this with the average percentage devoted to this purpose by other nations or regions of similar means. In those countries not yet providing universal, free, compulsory education to all children up to age fourteen, the percentage of the five to fourteen year old age group in full-time education is another useful measure of this commitment.

Educational Planning for Economic Development

To enable national or regional authorities to make rational assessments of their human capital requirements and to allot their financial resources to meet these needs, a number of models and schemata have been devised. Those of Davis⁴⁹, Harbison and Myers⁵⁰ and Tinbergen⁵¹ are among the best known. Jensen's⁵² is a more recent scheme. These plans lay down a system by which the kinds of educational investment needed at particular levels of economic and social development to provide the economy with the human resource potential to enable it to reach a projected higher level, may be determined. Basic to these models is a recognition that although educational development is essential to economic development, economic development in a particular region is dependent on the provision of the specific kinds of educational investment needed in that region at that time. Provision of the wrong programmes may actually hasten economic deterioration.

⁴⁹Davis, Russel C. Planning Human Resource Development: Educational Models and Schemata, Chicago: Rand McNally & Company, 1966.

⁵⁰Harbison, F. H. and Myers, C. A. Education, Manpower and Economic Growth. Strategies of Human Resource Development, New York: McGraw-Hill, 1964.

⁵¹Tinbergen, J. Development Planning, World University Library, London: Weidenfeld & Nicholson, 1967.

⁵²Jensen, Gale Edw. and Medlin, William K. (eds.), "Relationships between educational and economic development: an interpretation of Soviet policies", Readings on the Planning of Education for Community and National Development, Problems in Education and Nation Building, Vol. 1, Ann Arbor: Ann Arbor Publishers, 1969.

The Harbison and Myers manual is acclaimed as the "locus classicus" in the literature of manpower studies. Numerous national programmes and many more complicated models have been built on the base provided by this work. The policy framework devised by Gale Jensen bears many resemblances to the pioneering design of Harbison and Myers. Jensen's approach, however, begins in the hub of current theory, investment in human capital. This paper will utilize the Jensen framework. It is therefore appropriate to consider the similarity and differences this scheme bears to its famous predecessor.

In order to ensure that the educational investment planned will result in furthering development, educational planning must be based on careful analysis of the many facets of the economy of the region and various forms of educational enterprise must be identified according to the human resource development they most successfully produce. Harbison and Myers, and Jensen have detailed schemata which may be applied to a nation, in the case of the former, or to a region or community, in the latter case, to establish the level of economic development presently existing and to determine the forms of educational investment most urgently required to move the economy forward. Their frameworks may also be used to check the appropriateness of educational provision in countries or communities in which systematic educational plans have been prepared.

How does a nation or community invest logically for economic development? Gale Jensen's framework provides a criteria continuum against which a community can compare itself to determine into which

of four levels of economic development it presently fits. An optimum allocation pattern for educational investment is then proposed for communities at each of the four levels. The rationale on which the allocation is based must be applied against the background of the community's actual socio-economic conditions to find the specific forms the investment should take to move the economy of the area to the next higher level.

Harbison and Myers' system works in much the same way at the national level except that their fourfold classification of countries does not divide national economic development into quartile ranges and thus does not provide a simple continuum as does the Jensen framework.

The two methods differ in their basic approach to educational investment. Harbison and Myers began with the premise that underdeveloped countries face two broad categories of problems: they suffer from a shortage of high-level manpower with skills and competencies critically needed for the nation's development and from a large proportion of redundant or underutilized manpower. They thus see the solution of underdevelopment in the generation of competencies required and they present a technique for estimating what these requirements are by analysing trends and projecting their future directions and strengths. Jensen, on the other hand begins with the assumption that educational investment and economic development are intimately related and asks how, in a given situation, this relationship operates and how investments in human resource development might be better allocated to increase the economic returns to the community. His next step is then to identify the

kinds of educational enterprise that most efficiently produce this kind of human resource development. Both frameworks agree that the concentration at this stage of development should be on basic skills

Level I

Four fundamental shortages characterize the community or nation at a low level of economic development. They are: an internal market too small to stimulate the growth of consumer durable production; too little capital to enlarge or improve production capacity; a shortage of skilled, professional and management personnel; and a low general level of education and training. Both the Harbison and Myers and the Jensen framework hypothesize that the relationship between educational development and economic development is such that reduction of the latter two shortages will result in an increased internal market and a larger total capital stock. Both agree that for economies at the lower end of the development scale, a considerable initial injection of knowledge and competencies may have to be provided by the import of high-level manpower from outside. Both agree that adult education, in-service training, extension and correspondence programmes should be stressed in poorly developed areas. The time and cost savings realized from these sources by contrast to the long formal education period plus the inevitably low quality and the high drop-out rates characteristic of formal education programmes operated without adequately trained staff, are arguments in favour of this policy. The frameworks differ in the suggested source of funds for adult education. Harbison and Myers propose that these costs should be borne by institutions other than the education department. Jensen proposes that 75% of the total budget for 'human resource development' should be specifically

allocated to adult education and that 15% should be allocated, in addition, for on-the-job training. Both frameworks agree that the concentration at this stage of development should be on basic skills specifically required in the present economy and knowledge or attitudes needed to carry out the roles associated with the skills.

Formal education provision is relegated a much lower priority in the Jensen framework than in that of Harbison and Myers. Jensen allocates just 14% of the total education budget for this purpose and suggests that this be used predominantly for literacy education and the institution of science, mathematics and industrial arts courses for prospective teachers. Harbison and Myers recommend expenditure of the entire education department budget on formal education, 30% at the elementary level, 50% at the secondary level and 20% for higher education provision. They do, however, concur with Jensen that formal primary education should stress fundamental and specific skills required by the economy, particularly agricultural competencies, co-operative extension work, fundamental education and development education.

The importance of secondary education is emphasized over other levels by Harbison and Myers. They see a wide-based, general and basic secondary education avoiding craft and vocational training, as the key element in formal provision in underdeveloped countries.

The establishment of universities and semi-professional colleges is not favoured in either scheme, at this level. The allocation for tertiary education should be used to purchase this expertise abroad.

Level II

Countries at the second level of development in the two frameworks are not directly comparable. In the Jensen framework, each of the four levels is equidistant on a continuum ranging from low to high educational-economic development. The Harbison and Myers divisions, on the other hand, are not intended to represent a progression of development in equal steps. Rather, the separation between two consecutive levels is representative of a change in the nature of the development problem. Oversimplified, these separations may be stated as: between levels one and two the capability has been developed to produce most of the non-technical high-level manpower needed currently in the economy although even a level 3 country is dependent on the developed countries for scientists and engineers; between levels two and three, the educational machinery and personnel have been developed sufficiently to provide almost all the high-level manpower needed to utilize the technology and achievements of highly industrialized nations, and indigenous industry, for the most part, has assumed predominance over agriculture as the mainstay of the economy; the distinction between levels three and four is between a semi-advanced industrial economy and an advanced industrial economy, the latter, with periodic specific exceptions, possessing a large and sufficient stock of high-level manpower with the capability to initiate progress and innovation in a highly advanced and complex technology.

Professor Jensen's plan for level II countries calls for a 45% allocation of all funds available for education to the adult education sector. Vocational education would claim half of this huge allotment along with the preparation of subprofessional

teachers and managers. To the inculcation of attitudes and aspirations necessary to social change and economic growth he allots a considerable share of the adult education budget. On-the-job training is assigned 24-30% of the education outlay for the specific skills and knowledge needed in existing industries. Community education, particularly respecting population control, migrations, public health and community reorganization, is credited with 1% of educational funds and formal education is allotted 25-30%.

According to the Jensen formula level II formal education should stress literacy plus science, mathematics and industrial arts at the elementary school level. Jensen cautions, however, that formal education should be tailored to the available supply of qualified teachers and suitable premises so that the quality of the products obtained may be sufficient to promote growth. To maximize the economic impact of the courses it is suggested that the schools should be located in areas in which the professional and technical occupational roles they are developing are practised, to permit observation and part-time work experience as an adjunct to the schooling.

The Harbison and Myers strategy for lifting level II countries to level III development status, although not beginning from the same starting point, bears a number of resemblances to the Jensen strategy. It recognizes the same imperatives as pressurizing the political decisions with respect to education. These include the patriotic zeal for prestigious developments of grandeur such as steel mills, airlines and universities, the race between population and economic growth, between unemployment of an increasingly articulate,

welfare-minded public and industrialization capable of absorbing the underutilized farm labour, the conflict between a commitment to universal compulsory primary education and a need to maintain standards with few qualified teachers, and the critical shortage of second and third level education facilities and staff in the face of growing numbers of primary school graduates. Their proposals for educational investment emphasize formal secondary and tertiary education although they insist that these expanded institutions should devote as much time and effort to part-time adult education extension programmes as to full-time pre-employment education. The need for in-service training emphasized by Jensen agrees with the Harbison and Myers strategy, except that with the exception of small employers who might be granted tax incentives to encourage their efforts in this direction, subsidization of this training is not envisaged. Pressures would be used to ensure employer fulfilment of on-the-job training schemes. Third level educational effort is directed at expansion of agricultural, scientific and engineering faculties. To encourage entrance into these and subprofessional courses a revised salary structure is recommended to reward those whose work is most needed by the nation. This scheme envisages 30-40% of the educational budget to be devoted to a 50% increase of the primary school enrolment ratio to achieve universal elementary education of six years, 40% of the budget to secondary education to affect a 200% expansion of 'free' education and 20-25% of the budget to third level education to triple the enrolment, especially of subprofessional students and of science and engineering students at universities. To accomplish all this and still maintain high standards, Harbison and Myers estimate a doubling of the total outlay per capita on education will be required.

Level III

Level III countries are three-fourths of the way up the development scale according to the Jensen system. On the Harbison and Myers gradation, however, the industry and commerce of countries at this level may be little different from what is found at levels I and II. The distinguishing feature is the relatively high development of university education at level III. On most other points the two classifications are in agreement. In terms of human resource development countries at level III are about halfway between those at levels II and IV. Half the population remains dependent on agriculture. Transportation, communications and power development are well developed for level III requirements, but inadequate to support further development. As a consequence, both frameworks select engineers and scientists as the most essential form of human capital for the climb to level IV status.

Level III countries require the research and technological capacity to make use of the discoveries of level IV nations. At the same time they must consolidate the educational and industrial development they have already achieved often in the face of growing overpopulation and unemployment problems. They must expand the scientific and technical faculties of their universities at the expense of other disciplines. They must stress quality in their primary and secondary schools rather than quantity. They must rationalize industries and retrain and upgrade the skills of their workers. Emphasis thus falls on research and experimentation in expanded agricultural, scientific and engineering courses at university level, on quality in the formal education system and on in-service training and retraining in industry.

Jensen suggests an optimum allocation of thirty per cent of available resources for educational investment to adult and continuing education, thirteen per cent to on-the-job training, two per cent to community education and fifty-five per cent to formal education.

Level IV

Level IV countries in both classifications are technologically advanced states capable of major advances in science, technology and organization. They possess highly developed educational systems which have established a large stock of high-level manpower, particularly in the fields of science, engineering, management and administration. The portion of the population dependent on agriculture is small, generally of the order of five to twenty-five per cent. Half or more of the workforce produces goods for export. Transportation, communication and power development is ahead of demand and capable of anticipating and meeting future needs.

At first glance the affluent level IV countries appear to have no great problems in educational provision. A closer look reveals that competition is keenest of all at this level. They must run faster than countries at any other level just to keep pace. Their technology is changing most rapidly. Their fund of knowledge is growing at an accelerating rate. Their high standards of living depend on their continuing abilities to win a disproportionate share of world trade. They must progress or decline.

Harbison and Myers suggest a strategy of educational investment for level IV countries which emphasizes quality of tertiary

education, especially at the postgraduate level, which weights investment heavily to research and experiment, which stresses a broader background in the arts and humanities for engineers and scientists to enable them to appreciate the effects of their achievements on the world, which emphasizes retraining, upgrading, mobile skills, subprofessional education and a minimum of secondary graduation for all capable of it.

Jensen's outline of the optimum investment allocations for level IV education agree with these priorities. He assigns forty per cent of available resources to adult and continuing education, half of which is to be directed to the upgrading of professionals, one quarter of which is allotted to re-education and conversion programmes and one quarter of which is devoted to basic social education of the persistently unemployed. Fifteen per cent of educational resources are assigned to on-the-job training. Forty per cent are allocated to formal education with secondary education receiving sufficient resources to provide general and vocational training for seventy to one hundred per cent of the age group concerned.

The Harbison and Myers scheme may be criticized because in common with most manpower projection approaches it postulates a future demand for manpower which depends on a state of equilibrium being maintained among external factors. Jensen's framework is less specific and allows for readjustment in specific allocations in the light of changed circumstances. Additionally it provides the basis for regional analyses and plans. At a time when regional disparities are being highlighted by comparative unemployment and

standard-of-living indices, when regional development incentives are a troublesome political issue, when regional government is scheduled for implementation, the need for such a technique is obvious.

Summary Comparisons

Economic theory in the late 1940's and the 1950's featured a conviction that massive increases in physical capital could precipitate the economic 'take-off' that heralds accelerated industrial growth. Economists of the 1960's, disillusioned by the failure of conventional theory to explain the omnipresent 'residual' growth, rejected the old models and, in increasing numbers, accepted the view that human capital accumulation was of major significance in explaining the residual portion of economic development. H. G. Johnson expressed the new point of view succinctly at the O.E.C.D. conference in Paris in 1964. He said then, " -- experience has strongly suggested that the early postwar emphasis on investment in material capital in the methodology of economic planning was seriously mistaken", and he observed, "that economic development depends vitally on the creation of a labour force both equipped with the necessary technical skills for modern industrial production and imbued with a philosophy conducive to the acceptance and promotion of economic and technical change."⁵³

Johnson's latter points are assigned a higher priority in the Jensen framework than in the Harbison and Myers approach. Jensen stresses the early acquisition of the technical competencies

⁵³ Johnson, H. G. op. cit. pp. 34 f.

critical to the stage of development of the economy. Harbison and Myers argue for formal, general education. Jensen underlines the necessity to create a psychological climate in which social and technical change may be easily affected, but his relatively heavy prescription of funds to community education for this purpose is not iterated by Harbison and Myers.

There have been underlying assumptions in the writings on the economics of education that adult education and community education and emphasis on technical and scientific competencies in the formal school system were appropriate to the situation prevalent in under-developed countries, but the necessity for heavy prescription of them lessened as the nation climbed the development ladder. Jensen's framework challenges these assumptions.

Adult education is considered appropriate for developing nations because their shortages of skilled manpower are immediate roadblocks to development. Trained personnel are needed quickly and adult education is an avenue to their rapid production. This is no less true in highly developed countries. The theory that long term planning can predict and supply appropriate needed human capital in correct proportions has been found wanting. Obviously, advanced countries must use the best techniques available to plan the production of their formal school systems to meet anticipated demands. But no system can predict the effects of unforeseeable changes in technologies and the concomitant changes in consumer demand which can so change industrial circumstances. When sudden shifts in labour markets occur, creating unexpected demands for new skills, the formal school system cannot react quickly. A

generation of students may have to pass through the reoriented curriculum before graduates with the new competencies are available. Such upheavals occur not less, but more often in those countries which possess the educated, innovative talent to precipitate them. Adult education then, must be a priority in the advanced as well as the developing countries, indeed in all rapidly changing societies.

The importance of community education is manifest in a developing country. A culture dependent on values linked to subsistence agriculture, hunting and traditions opposed to the transient relationships characteristic of a mobile, technologically-based society must be transformed emotionally before its citizens will be able to accept the social disjunctions technical progress imposes. It is often taken for granted that advanced states possess a citizenry inured to frequent migration, family separation, job retraining and financial and social readjustments. This is only partially true. The changes required are progressively more frequent and proportionately more severe as technology changes ever faster. In the most advanced nations the necessity to convince people to continuously update their knowledge and skills and to be prepared to move, lock, stock and barrel several times in their lifetime, is now regarded as no less important than community education in backward countries.

No issue has been more controversial among the manpower planners than technical education. A nation transforming itself from primary to manufacturing industries must produce the technical skills required in her factories. This is an obvious 'sine qua non'.

Yet a number of studies, including the recent ones by Adelman⁵⁴ and by Bowles⁵⁵, mentioned earlier, have failed to show that vocational and technical education is a good investment even in developing countries. Rather they show that the costs of such preparation are greater than the returns. The controversy rages on.

Jensen's stress on technical and scientific education is based on analyses of several areas in which a transformation from a primitive to a highly developed industrial economy has been achieved with impressive suddenness, as in the case of the Uzbek Republic of the U.S.S.R.⁵⁶ Initially, in these examples, a considerable importation of skilled manpower was relied upon, but this was soon accompanied by heavy investments in technical training. This kind of evidence in favour of technical education is at least as impressive as the evidence against it. In the absence of an 'experimentum crucis' it seems reasonable to assume that some element has been missed in the analyses of the anti-vocational-educationists and to accept what appears true by simple observation, that a man taught to operate one machine will demonstrate a 'savings' benefit when learning to operate another.

When all is said and done, when all the shortcomings of the hundreds of studies are sifted out, there remains no clear, unequivocal system by which the educational requirements for the

⁵⁴Adelman, op. cit. p. 132.

⁵⁵Bowles, op. cit. p. 133

⁵⁶Jensen, op. cit., *passim*.

maximization of the economic development of a society may be stipulated. Each study has contributed something of value to the search. None has documented the definitive answer. The design of Jensen and Medlin is a new, radical, but optimistic approach. Attempts at application and refinement may not be crowned with the absolute success that has eluded all other systems, but will certainly add to our growing understanding of the interrelationships between education and economic and social development. They will do more. They will focus attention on regions and communities rather than nations. And in developed countries many of the crucial decisions are made at this level.

This study focuses on one region of a highly developed nation, a region with a disparate set of problems from the nation as a whole. The Jensen-Medlin approach is appropriate to the requirements of this study both in terms of regional focus and the set of analytical criteria required for its implementation.

An Outline of the Study

Given the state of the knowledge as synopsized above, and the decision to utilize the Jensen framework in this study, two questions arise concerning its application to the study region.

1. Where does the framework lead the researcher and what new insights does it reveal?
2. Does the framework lead to a kind of educational investment programme that offers greater promise than the one that now exists?

The chapters ahead will consider these questions and search out the answers.

Chapter 2 provides a brief description of the region as a background to the study. It touches on its history, economy, geography and ecology to give an overview of present conditions that have led to the economic situation discussed in Chapter 3.

Chapter 3 outlines the economic and employment picture in the Borders. The narrowness of the employment base, unusual dependence on agriculture and textile manufacture and deceptively low unemployment rates are noted and comparisons are made between the economy in the Borders and in Scotland as a whole.

In chapter 4 the characteristics of the population in the borders are examined. Settlement differences among the four counties, between upland and lowland areas, and between burghal and rural areas are analysed and migration trends are considered. The effects of settlement patterns and migrations are shown in the unbalanced nature of the Borders population structure and future skewedness is predicted on the basis of birth and death rates for the four counties. Social and economic ramifications of the unique population structure of the Borders are then examined.

Education in the four counties is the subject matter of Chapter 5. Among aspects examined are the falling enrolments in landward classes and the closing of small rural schools consequent to this, educational administration in the counties, the loss of potential educational resources through early school leaving, sizes and content of further and adult education classes and the distribution of educational funds.

The present state of development in the borders is the topic of Chapter 6. The objective of this chapter is to show the effect of factors drawn out in chapters two to five on the lives of the people who live in the borders. Information already presented is reviewed and supplementary data is brought forward to show how some people are disadvantaged by present circumstances and to illustrate socio-economic problems which exist. The advantages of the region are also cited along with brief comment on the determination of borderers to maintain the beauty and uniqueness of their region.

In Chapter 7 a number of development plans already prepared for parts of the Borders Region are discussed. These illustrate a remarkable consistency in social and economic goals and a similar determination to preserve the natural and historical heritage as revealed in architecture, townscape and settlement pattern.

In Chapter 8 the Jensen framework is outlined and modified to fit the Borders Region. The plans detailed in Chapter 7 are then reviewed to determine how application of the framework could contribute to the realisation of the plan objectives. In addition an alternative strategy of 'landed' development is recommended and the optimum allocations of educational investment for the realisation of this plan are proposed.

Chapter 2. The Borders Region

An Overview of its History, Geography and Ecology

In his romantic treatment of southern Scotland, Ian Finlay says "No part of Scotland is more Scots than the Borders."¹ He goes on to say that this is odd because there is no sharp demarcation in topography at the border, nor a change in language. English and Scottish traffic indistinguishable one from the other, ply the major roads that cross the Border counties between England and the Scottish capital. Borderers themselves drive as readily to Newcastle as to Edinburgh for their major go-to-town expeditions. Yet there is a remoteness about the Border land that bespeaks both its Scottishness and its distinctive Borders character. The solitary croft house so common in the Highlands is seldom seen. Instead, dwellings and farm buildings are clustered in tight, defensible communities as though still prepared to resist the 'rough wooing' of the English armies or the plundering attack of a roving gang of reivers.

The internecine warfare of the reiver raids passed into history almost four centuries ago, but the way of life it imposed is reflected to this day in the landscape and in the Borderers intense parochial loyalties. Sporting rivalry, especially in rugby, evinces this local pride most obviously. Every town has a rugby team and to gain a team place is to win the cordon of town honour. Nowhere are the games more hotly contested nor the teams more enthusiastically supported.

¹Finlay, Ian. The Lowlands, London: B. T. Batsford Ltd., 1967, p. 181.

Rugby reveals another anomaly of Border life. Whereas this sport is largely the preserve of the upper strata of society in other parts of Scotland and England, Borders' Rugby Union teams are comprised of men from all social levels. Yet nowhere in the country do wealthy landowners retain so much of the power and prestige of past generations. There is a clear distinction between those who employ and those who are employed, but it is a division, not a barrier.

The endurance of the great estates in the Borders has perpetuated a dependence on the land and the landowner. Agriculture is one of two major industries. Textile manufacture, dependent on sheep farming, is the other. Economic prosperity is dependent on the successful operation of farms and mills. Elective posts are dominated by the nobility and the gentry.

What have been the effects of this unique history on economic and educational development? What is the present status of economic, governmental and educational development? This section will provide some answers to these questions and present a picture of the Borders in demographic, economic and educational terms.

Basic Data:

The four Borders counties encompass a total area of 1,111,610 acres; the 1969 population was 96,730; and the rateable value for 1969-70 was £2,500,815. Table P1 shows how these figures relate to each of the four counties.² It is clear that the Borders region

² Scottish Development Department. Rates and Rateable Values in Scotland 1969-70. Edinburgh: H.M.S.O., 1970, pp. 8, 20, 22.

Table F1

Population, Area and Rateable Value in the Borders

County	Population	Acreage	Rateable Value
Berwick	20,499	292,536	£ 499,202
Peebles	13,339	222,241	442,610
Roxburgh	42,619	425,616	1,026,572
Selkirk	20,273	171,217	532,431
Totals	96,730	1,111,610	£2,500,815

falls far short of both the 250,000 minimum population suggested as necessary for economic viability in the Johnson-Marshall Report³ and the 200,000 minimum considered adequate by the Wheatley Commission to provide a good all-round standard of education.⁴ Despite a geographic magnitude sufficient, when combined with its strategic location, to warrant economic development of major proportions, the region's total rateable value is small. Obviously, the proposed regional authority will have to look to larger, neighbouring regions for supplementary services and markets.

Geography:

Berwick and the Central Borders belong to the geographic division known as the Southern Upland, a region of pleasant valleys and inhospitable hills, which, despite its name, forms a part of Scotland's "Lowlands". This use of the term "Lowlands" is, however, uniquely Scottish for by other standards a great deal of this countryside is hilly, to say the least. It is distinguished

³Ibid. p. 4.

⁴Royal Commission on Local Government in Scotland, 1966-1969
Edinburgh: H.M.S.O. (Cmd. 4150), September 1969. p. 94.

from the "Highlands" in a number of ways, perhaps the most obvious of which is the absence of the spectacular outcrops of metamorphic rocks with their erosion resistant gneiss, granite and schist, which produce the drama of the Highland scenery. Indeed, the Lowlands may boast of a time past when their mountain peaks climbed higher than the most majestic of present Highland hills. The Pentland Hills which Edinburgh children now climb at a romp were once a mile high. The great mountain ranges of which they were a part were built of soft erodable materials which the forces of volcanic eruption, weather, water and glacier pushed, broke, washed and scraped from the summits and deposited in the valleys until the mountains stand dwarfed and the valleys are raised. Beneath the deep soil of the valley floors harder, more resistant rocks lie buried, only rarely exposing themselves as they do at Dunbar, where the Lammermuirs dip to the sea and show their ribs at the porphyry fortress of St. Abbs.

Evidence⁵ suggests that during the latter stages of evolution the south east block of Scotland was tilted downward to the east, hence the main rivers, the ancestors of the Leven in Fife, the Forth and the Tweed, flowed in this direction, with their tributaries entering generally from the north and the south. Periodic elevations and continuous erosion corrupted this simple pattern as lower strata of varying hardness eroded at varying rates and drainage tributaries gradually penetrated to the underlying faults and fractures. Depositions of boulder-clay, silt and gravel built up in low lying

⁵British Association for the Advancement of Science
op. cit. p. 13.

areas, against hard out-crops and at river confluxes until the present system of winding rivers criss-crossing a landscape overlaid with the still discernable original pattern, emerged.

The process of change continues today. Floods change the courses of streams; erosion continues; man contributes the spoil-heaps of his mining ventures and by overgrazing, pollution, poorly timed burning of the heather, artificial drainage, fertilization or reafforestation, changes the nature of the soil, sometimes improving, but more often reducing its resistance to nature's ravages. But the underlying structure of the old system is still apparent and the basic easterly and north-easterly trend of the rivers and valleys affects life in the area profoundly.

Weather and Climate:

Low-lying areas in the Borders may fairly be described as maritime temperate in climate, temperatures in excess of 80°F or colder than 25°F being rare, although rapid fluctuation within these limits is common. Upland areas, on the other hand, might be more accurately described as sub-arctic, the severe exposure to which they are subject frequently creating tundra-like conditions. Although the south-easterlies that depress temperatures in South-East England are less cold over this region, after their warming passage over the North Sea, the added moisture they have absorbed makes them equally as discomfiting. Spring with its cold wet sea fogs known as haars and north-easterly arctic winds, is the most unpleasant season. Light southerly winds, warmed during a long passage overland, bring the warmest days of summer, but these are tempered by breezes off the sea. Autumn is often blessed by south-westerlies and long clear spells of pleasant weather.

Although the average rainfall in the Borders is about 32 inches, wide variations of altitude and exposure make any overall figure misleading. St. Boswells, at 260 feet O.D. records just 28.02 inches, while Selkirk at 670 ft., gets 34.79 inches and most areas above 1,000 ft. O.D. receive over 50 inches per year.⁶

Snowfall is unpredictable, but single falls can be heavy and may lie on the ground for prolonged periods, especially on north-facing slopes and at higher altitudes. Since snow, on almost every occasion, is brought by winds out of the quadrant and a half east of north, the Lammermuirs, exposed to almost every wind in this arc, bear the brunt of the storms. Coastal communities average about fifteen snowfall days per year, but snow is still lying on the ground on only about five mornings. The highest Lammermuirs average about seventy-five snow lying days per year⁷, but the unpredictability of snow conditions means that average values have little predictive reliability. Statistics for Bowhill, near Selkirk, at 600 feet O.D., show that snow lay on the ground ten days in the winter of 1956-57 and eighty-four days in 1962-63.⁸

As already seen, the high hills of the region may intensify the ill effects of snow, rain and haar by funnelling the winds into and through the area, but on the whole the hills moderate the climate for the lowlands at their feet. Although the Berwickshire

⁶ Scottish Development Department, op. cit. p. 39.

⁷ British Association for the Advancement of Science, op. cit. p. 42.

⁸ Scottish Development Department, op. cit. p. 39.

coast is exposed to about twenty gales per year, inland lowland areas experience only half as many. As this protection decreases with altitude, the persistence and severity of the winds increases, until above 700 feet O.D. the usefulness of the land is markedly diminished by the effects of exposure.

Wind channelling can be beneficial too; it reduces the number of ground frosts along the coast. In sheltered valleys ground-frost is a hazard as early as September and as late as May and even, on occasion in June or August.

Sunshine can be a scarce commodity in the Borders. High, steep hills overshadow land beneath from a low northern sun and persistent mist may further reduce sunlight penetration, especially during the winter months. As a consequence the mean daily duration of sunshine is under four hours for much of the area.⁹

As with wind and rain, temperature too is affected by altitude, a drop of one degree Fahrenheit per three hundred feet of rise being a convenient rule of thumb. The average daily mean temperature for Marchmont, at 498 ft. O.D. is 46.7°F.; for Blythbridge, at 830 ft. O.D. it is 45.3°F. In the case of temperature, however, the situation may reverse itself when obstinate mist and shadow prevent the sun warming the valley by day and cold air drains down from the hilltops at night.¹⁰

⁹Ibid.

¹⁰Ibid.

For the purposes of this study, wind, rain, snow, sunlight and temperature are significant to the extent that they contribute to the suitability of the region for agriculture, for industrial development and as a place to live. In South East Scotland the length of the plant growing season is defined as the span of days in which the daily mean temperature exceeds 42°F . Kelso, at 193 ft. O.D. has 219 days on average, above this temperature. In the Lamermuir, at 1,400 ft. O.D., the average is just 175 days.¹¹

Industrially, climatic conditions provide few disincentives to potential developers. Weather is rarely a problem to transportation agencies and semi-open storage is possible for most products throughout the year. The prevalence of fog, combined with the topography of the region, made smoke producing factories a problem in the past, but environmental legislation imposes restrictions on these everywhere today, so that this need constitute a barrier little greater in the Borders than anywhere else. Indeed, for some industries the high humidity accompanying this phenomenon may actually be an asset.

As a place to live the Borders have always been highly regarded. The region is not subject to dangerous storms. Temperatures in low lying areas exemplify the temperate range. The continuing influx of the retired illustrates that the popularity of these factors is not diminishing. From a climatic point of view the Borders is still a rewarding place to live.

¹¹ Ibid.

Ecology:

Man and Environment:

The vegetation of any area is determined very largely by climate, soil, elevation and aspect, but if only these factors are considered, some major ecological developments will not be understood, for to these must be added the influences of wild animals, and increasingly over the past few centuries the often devastating influence of man with his domesticated animals and his talent for destroying, impoverishing and polluting his environment. Even an accounting of man's wanton exploitation of forests, soils, waters and minerals does not exhaust the list of his iniquities; his failure to control vermin such as rabbits or intrusive plants like bracken has appreciably altered the vegetal and animal inheritance of his own posterity. To appreciate what grows and what feeds on the growth in the Borders it is necessary to understand the history of the intimate relationship between plants and animals, including man, in this region. In the interests of brevity, however, only a sketchy account will be given.

Forests are the most luxuriant of vegetal forms and their presence is commonly, if sometimes erroneously, cited as evidence of the fertility of the soil from which they spring. Place names, literature and personal accounts abound with references to forests that, one might judge, had covered all of Scotland long ago.

Closer examination reveals that the word forest frequently referred to a hunting area, not necessarily wooded, and it is clear that many of the ancient chroniclers were men who travelled very little in their lifetimes and whose assessment of woods was based on very limited personal experience. Unquestionably, extensive forests

did exist, but over large tracts climatic and soil conditions would have prevented the growth of trees of any quality. In any event, much of Scotland's forests were destroyed by the sixteenth century, when legislation, later circumvented, was enacted to check the process. In the Borders, owners of the great estates were intermittently enthused by the need for reafforestation so that parcels of wooded land existed in sufficient abundance to have at least one obvious effect, the fox survived here while his species disappeared almost everywhere else in Scotland.

Of the many animals that inhabited this region few did survive. At one time or another elk, reindeer, wild oxen, bears, wolves, boars, deer, otters, European beavers, lynxes, pine martens, polecats, and many other species were plentiful.¹² The major force in the loss of most of these animals has been man.

Hunting was for centuries the sport of kings. Noblemen were granted hunting privileges in return for protection of the king's hunting grounds and severe penalties were meted out to those who transgressed the laws prohibiting poaching. But harsh punishments seldom eliminate any form of behaviour. The game of wits between nobleman and commoner became so traditional that the poacher became a kind of folk hero and in the end so successful that he hunted his quarry into virtual extinction.

An increasing population inevitably led to the cultivation of more land and the extension of grazing areas. Since

¹²British Association for the Advancement of Science,
op. cit. p. 86.

domesticated animals cannot profitably be raised when competing with wild herbivores for feed or when exposed to attacks by carnivores, each expansion of farming limits dictated a corresponding reduction of wild animal ranges and numbers.

Gradually man brought more and more marshy and scrub land areas in the remote lowlands and valleys under cultivation by drainage and clearing the natural vegetation. As markets for wool and meat expanded, more of the higher ranges and steeper slopes were turned to grazing and the process of ecological alteration proceeded apace under the influences of man's plough and pasturage.

Most influential in changing the nature of the hills has been the sheep. From the time the monks of the Border abbeys established the woollen industry the Southern Uplands have been undergoing drastic changes. Some five centuries ago woodlands were plentiful throughout the Tweed basin. Goats, cattle, horses and ponies were raised on the hills and crops were cultivated on the gentle slopes above the flood plains, where natural drainage prevented the marshy conditions prevalent on the flats below. As the demand for wool grew, the pressure for more grazing spilled sheep and other grazing animals into woodlots. Rapid deterioration was inevitable. Heather pasturage shrank, bracken and nardus invaded large areas and grassland replaced former forest land. To gain still more ground farmers exsiccated the rich soil of the marshlands for tillage, then abandoned the arable slopes to ignoble status as rough pasture. Traces of ridges and furrows still show on many hills in the Tweed basin, testifying to a more productive past.

Man's influence on his environment is continuously demonstrated in the chain of succession of Southern Upland vegetation. Heather extends over much of the higher land, the remnant of the forest and bush cover that once protected the hill soil so much more effectively. Heather grows on thick peat beds. But the hill peat caps are deteriorating at an accelerating rate. The Southern Uplands are not wet enough for peat formation, so, denuded of trees that helped hold moisture and overgrazed by sheep, they lose their peat cover incessantly and it is not being replenished. Heather is burned to get rid of old woody stocks and encourage the young shoots needed for winter grazing. But burning frequently results in surface erosion. On steep slopes this erosion may be so serious that underlying soil becomes mixed with the thin peat cover and bell heather lays claim to the ground. Or the burning may be so long delayed that the heather becomes too old to regenerate itself and nardus grass takes over. The greater the pressure of sheep grazing the more susceptible is the land to erosion and the faster the competition for soil between heather and bell heather, wavy hair grass, sheep's fescue grass, bent grasses and nardus or mat grass, is won by the plants of poorer nutritive value, particularly nardus. This is, in part, because the wiry nardus is the least preferred of the grasses, except in early spring or when the nardus is young, and the other grasses, in consequence, receive disproportionate attention from the hungry sheep. A second factor is the shortage of labour, increasingly a problem to the hill farmer in a modern economy with rising standards of living. With insufficient help, the farmer is unable to keep up with the heather burning and after ten to fifteen years the plant's capacity for natural regeneration declines rapidly. Bracken constitutes another dimension of the

problem. Although ferns do not easily find a foothold in a vigorous heather growth, they abruptly invade burnt over areas and win over grasslands without difficulty. Bracken infiltration is now a menace of considerable proportions. The removal of cattle from hill grazings contributed to the conditions that encouraged the Bracken spread, another of man's indirect influences on vegetation. In sum, the present pattern of heather, bracken, nardus and other grasses reveals the past activity of man and his domesticated animals, predicts the effects of present activities and sounds a warning against a continuation of abuses which can but lead to the long term penalty of barren land.

The effects on the environment of man's impositions are everywhere apparent in South East Scotland. The green hills devoid of tree cover, the neat symmetrophobia of the Commission's silviculture, the patchwork vegetation of the hills, are typical of the region. Over-concentration on sheep raising has limited plant growth and non-domestic animal life on the hills. At lower levels cattle-farming is already initiating some recovery from this condition. Bracken and grasses are replacing heather and again altering the pattern of animal dependencies on the floral growth. The grouse population is diminishing. Numbers of pheasant, blackcock, capercaillie, ptarmigan, ducks, geese, swans, gulls and smaller birds are changing. Man exchanged his forests and wetlands for arable farmland and grazing grounds. He then proceeded to ruin much of it by overgrazing and interfering in the cycles of nature's dependencies. He buried much of the best

land under houses, factories, roads and spoil-heaps. He does it still. Now some voices demand that this process be reversed and some action has been initiated. The questions that remain are: How much? How soon? Is it already too late? How can future development be planned to avoid additional despoliation?

Unemployment figures have consistently been low and this, according to the 'good health' has been complemented by the profitable look of well-cared-for farms, busy towns, good housing and the apparent high standard of living of the people.

Unemployment statistics for the Borders during the 1940's are given in Table II. From 1940 to 1946 unemployment varied less than 0.2% and never exceeded 1.1% of the insured population. After 1946 the decline of the textile industry and attempts by the large textile firms to 'rationalise' their production contributed to an increase in the unemployment ratio beyond its normal bounds, but as late as 1949 the percentage unemployed had not risen beyond the level designated by the government as 'full employment'.

The bulk of the industry of the region is located in the Central Borders, the three counties of Peebles, Roxburgh and Selkirk. Berwickshire is more rural. Unemployment figures for the Central Borders, excluding Berwickshire, may thus be a better indicator of the state of industrial health in the Borders. These figures, shown in Table III, reveal unemployment levels even lower than those for the four-county region.

Chapter 3. The Economy of the Borders

Economic Structure:

The 'economic pulse' of a region is often appraised via a consideration of the number of persons unemployed. Until quite recently such an assessment of the Borders' counties would have created an erroneous impression frequently transmitted to casual visitors. Unemployment figures have consistently been low and this seeming 'good health' has been complemented by the profitable look of well-cared-for farms, busy towns, good housing and the apparent high standard of living of the people.

Unemployment statistics for the Borders during the 1960's are given in Table II. From 1960 to 1966 unemployment varied less than 0.2% and never exceeded 1.1% of the insured population. After 1966 the decline of the textile industry and attempts by the large textile firms to 'rationalize' their production contributed to an increase in the unemployment ratio beyond its normal bounds, but as late as 1969 the percentage unemployed had not risen beyond the level designated by the government as 'full employment'.

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TABLE II: UNEMPLOYMENT IN THE BORDERS 1960-1970

Employment Exchange Area	Unemployment statistics for June of year indicated										
	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Eyemouth %	78	135	129 2.3	131 2.2	103 1.7	111 2.0	105 2.0	182 3.5	159 3.0	158 3.2	218 4.6
Galashiels %	83	96	96 0.7	84 0.6	79 0.6	79 0.6	69 0.5	107 0.8	108 0.8	126 0.9	152 1.1
Hawick %	86	64	77 0.6	98 0.8	75 0.6	76 0.7	83 0.7	154 1.3	139 1.2	110 0.9	135 1.2
Jedburgh %	68	59	46 1.5	57 1.7	37 1.3	39 1.3	26 1.1	43 1.5	44 1.8	47 1.9	58 2.2
Kelso %	39	34	37 1.5	34 1.7	31 1.3	28 1.3	31 1.1	36 1.5	48 1.8	48 1.9	52 2.2
Peebles %	29	34	59 1.2	59 1.2	47 0.8	37 0.8	33 0.7	68 1.4	51 1.0	45 1.0	100 2.3
District Total	383	422	444	463	372	370	347	590	549	534	715
Insured Population of district	a	a						b	b	b	b
% of insured population unemployed	41,296 0.9	41,134 1.0	41,134 1.1	41,348 1.1	41,345 0.9	40,387 0.9	40,681 0.9	40,545 1.5	40,594 1.4	40,660 1.3	39,160 1.8

Source: Department of Employment, Edinburgh.

^aTotals calculated from Employment Estimates. These totals do not correspond exactly to insured population figures.^bTotals calculated from individual Exchange percentages. These totals do not correspond exactly to insured population figures or to Employment Estimate totals.

TABLE LII: UNEMPLOYMENT IN THE CENTRAL BORDERS 1960-1970

	Unemployment statistics for June of year indicated										
	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Central Borders											
Total											
unemployed	305	287	315	332	269	259	242	408	390	376	497
Total insured											
population	^a 35,237	^a 35,402	35,525	35,393	35,286	34,837	35,431	^b 35,345	^b 35,294	^b 35,722	^b 34,421
% of insured											
population	0.9	0.8	0.9	0.9	0.8	0.7	0.7	1.2	1.1	1.1	1.4
unemployed											

Source: Department of Employment, Edinburgh.

^aTotals calculated from Employment Estimates.

^bTotals calculated from Individual Exchange percentages.

The unemployment figures used in Table II and III are estimates derived from Employment Records IIA compiled by the Department of Employment. They suffer from several shortcomings which render them insufficiently precise to permit detailed comparisons. Firstly, they are merely estimates. Secondly, a substantial proportion of employees work for firms employing fewer than five persons; that is, for firms not required to render employment returns to the Department. For this sector of the working population, (15-20% at the national level), the number of national insurance cards exchanged in the quarter beginning in June provides the only count. The practice of paying the contributions of civil servants directly, without reference to insurance cards, considerably reduces the accuracy of this count. Finally, sampling errors in a population as small as that in the Borders, may amount to 3% or more.

The usefulness of Tables II and III is restricted still further because it was necessary, in the absence of similar data for the full period, to use three different methods to determine the total labour force in the region. The 1960 and 1961 figures are totals of employment estimates issued by the Department of Employment, Edinburgh, for these years. The totals for 1962 through 1966 are the insured population figures. The 1967 through 1970 totals are calculated from unemployment percentages for each exchange area. Despite these shortcomings, the percentages derived provide a reasonably accurate assessment of the unemployed population of the region during the period considered.³⁶ These

³⁶The average annual unemployment rate for the period 1960-1966 for the Central Borders, computed from Table III, is 0.819. The rate for 1959-1966 given in the Johnson-Marshall Report is 0.81.

tables show that the average annual unemployment percentage, up to 1969, remained well below the 1.5% which the Government defines as full employment. There would thus appear to have been a shortage of labour in the Borders rather than a surplus and an influx of job-seekers might have been expected. These figures thus hide the true state of affairs in the region. There was, in fact, a severe shortage of labour in the Central Borders for a number of years. But this shortage was confined to the textile mills and was primarily a shortage of female workers. As a consequence the young men of the region sought work outwith the Borders, thus removing their numbers from the unemployment statistics of their home counties and perpetuating the illusion of overemployment there.

The paradoxical association of economic decline and low unemployment derives from many factors, but overspecialization in agriculture and woollens manufacturing lies near the centre of causation. Table LIII indicates the concentration of labour in these two employment sectors. Figure LI presents the same emphasis in diagrammatic form. Table LIV compares the employment mix of this small region to the mixes found in Scotland and the U.K. generally.

Table LIII reveals that in the Borders the portion of the labour force employed in primary sector activities is three times larger than in Scotland as a whole. Within the primary sector the proportion of workers absorbed by agriculture is almost twice the national ratio. A similar picture is revealed for the secondary sector. Manufacturing accounts for a larger segment of the labour force in this region than nationally and textiles so

dominate this sector that almost ten times as many Borderers work in textile production as do Britons in the U.K. generally. What the table does not make clear is the concentration of this force into the narrow band of the textile industry represented by the hosiery and woollen trades. Engineering and electrical goods constitute the only other manufacturing segment of any size, and this segment absorbs less than a third the proportion of workers in the Borders that it does in the U.K.

The primary and secondary sectors of the economy being larger than is the case nationally, the tertiary sector is, of course, smaller. Whereas nearly three-fifths of workers in Scotland and the U.K. as a whole are employed in service work fewer than half are so employed in the Borders. Only one of the eight major divisions of this sector employs proportionately more workers in the Borders than in either Scotland or the U.K. Perhaps appropriately, this division comes under the Head 'Miscellaneous Services'. Construction utilizes more of the labour force in the Borders than in the U.K., but less than in Scotland. Transportation and communication, professional and scientific services and public administration, key segments from a development point of view, are all underrepresented in the Borders.

In the Johnson-Marshall Report 'regional co-efficients of specialization' were computed "by summing the differences between the percentages of the total labour force employed in each and every industry at the national and regional level, and dividing the results by 100."¹ The co-efficient derived compares the mix of

¹ Scottish Development Department. The Central Borders: A Plan for Expansion, Vol. 2, Edinburgh, H.M.S.O., 1968, p. 12.

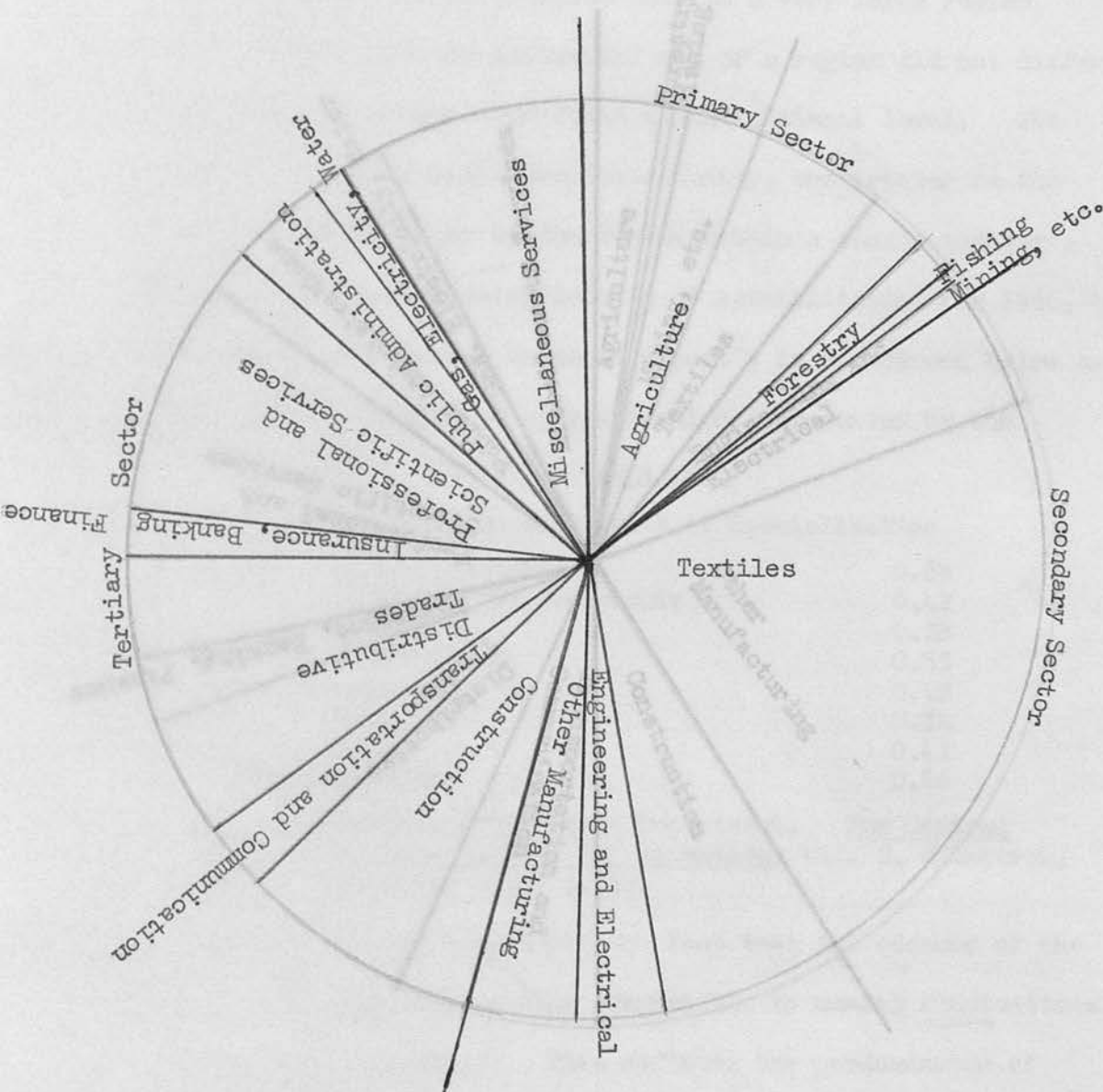
TABLE LIII
Distribution of Labour in the Borders

Industry Sector	Eyemouth		Galashiels		Hawick		Jedburgh and Kelso		Peebles		Totals	
III	43	48	91	/	/	/	/	/	/	/	43	48
IV				/	/	/	/	/	/	/		91
V				/	/	/	/	/	/	/		
VI	72	15	87	267	138	405	111	12	123	428	133	561
VII												24
VIII												1
IX	18	1	19									25
X	49	184	233	1,970	2,004	3,974	2,942	3,617	6,559	39	208	247
XI												816
XII												711
XIII												18
XIV	68	5	73	170	17	187	63	2	65	4	19	19
XV				89	40	129	40	8	48	16	8	324
XVI	92	43	135	237	117	354	77	30	107	191	70	145
	342	296	638	2,733	3,316	5,049	3,233	3,669	6,902	678	419	1,097
												864
												717
												1,581
												7,850
												7,417
												15,267

/Included with Other Manufacturing (XVI)

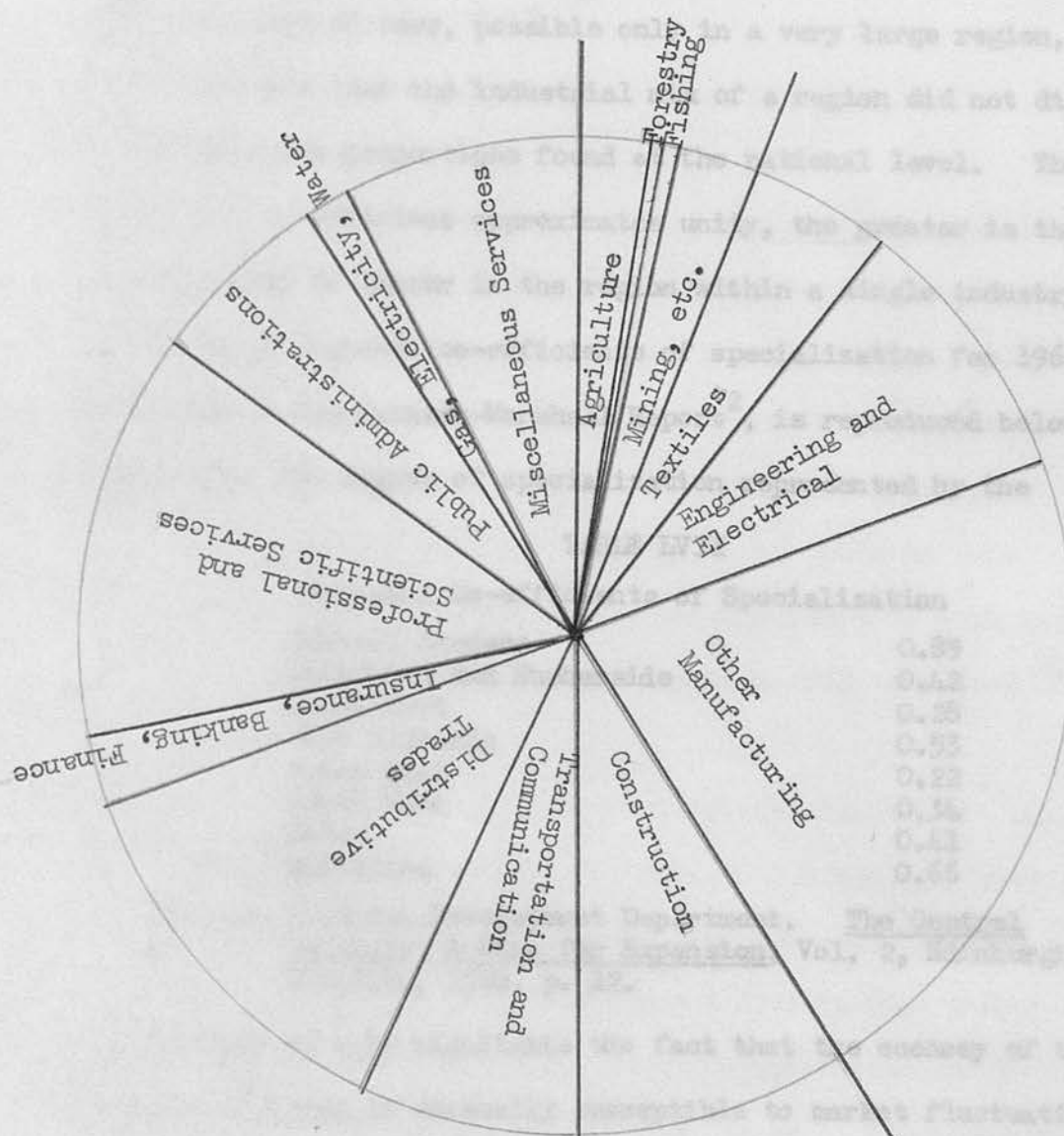
Source: Department of Employment, Edinburgh.
Statistics for Local Employment Exchange Areas, 1968 (June).

Figure II
Distribution of Labour in the Borders



Source: Department of Employment, Edinburgh. Statistics for Local Exchange Areas, 1968, June.

Figure LIII
Distribution of Labour in Scotland



Source: Economic and Statistics Unit, Edinburgh. Digest of Scottish Statistics. No. 36, October, 1970, H.M.S.O., pp. 36, 37.

industries in the region with the mix of industries in the nation. It provides a useful index for comparative purposes, but should be used cautiously because it does not take into account the absolute sizes of industries at the two levels nor compensate for the incapacity of small regions to provide a wide spectrum of industries out of their limited resources of labour and capital. A co-efficient of zero, possible only in a very large region, would indicate that the industrial mix of a region did not differ at all from the proportions found at the national level. The closer the co-efficient approximates unity, the greater is the concentration of labour in the region within a single industry. The table of regional co-efficients of specialization for 1966, published in the Johnson-Marshall Report², is reproduced below as Table LVII. The degree of specialization represented by the

TABLE LVII

Regional Co-efficients of Specialization

Central Borders	0.89
Yorkshire and Humberside	0.42
North East	0.28
East Midlands	0.53
South East	0.22
North West	0.34
Wales	0.41
Mid-Wales	0.66

Source: Scottish Development Department. The Central Borders: A Plan for Expansion, Vol. 2, Edinburgh, H.M.S.O., 1968, p. 12.

co-efficient of 0.89 highlights the fact that the economy of the Borders' counties is unusually susceptible to market fluctuations in one or two industries. This reflects the predominance of agriculture and textiles as employers in the region, noted in

²Ibid.

Table LIII and Figure II. The importance to sheep farming of a ready market for wool at the mills focuses regional economic dependence even more on textile manufacturing. But a large percentage of the products of Borders' mills is exported overseas. Thus prosperity in the region depends on fashion preferences in markets around the world, conditions over which the Borderers have little control.

Employment in the 60's

Statistics of unemployment in the Borders from 1960 to 1970 were displayed in Tables LI and LII and the 1968 labour force was broken down by sectors and industries in Table LIII. Unemployment is the visible indication of changing industrial conditions. To provide some background to the recent pattern of development of the region's industrial structure, which has produced this unemployment, the growth or decline of employment in each exchange area is detailed for each year from 1960 to 1968 in Tables LV and LVI.

A number of trends may be discerned from Table LV. Agriculture, forestry and fishing, considered together, employed fewer workers each successive year. Over the eight-year span of the table the number of jobs in the primary sector fell by over twenty-five per cent. Textile employment fluctuated throughout the period as one might expect a fashion-related industry to do. The rises and falls were mild, but an overall fall of seven per cent was registered. Other manufacturing made slight recoveries in 1961-1962 and 1967-68, but otherwise continued a steady decline, registering a total drop of sixteen and a half per cent. Engineering and electrical goods

TABLE IIV

Employment as a Percentage of the Labour Force, 1968

	% Total Labour Force		% Sector's Labour Force		U.K. ^c		U.K. ^c	
	Borders ^a	Scotland ^b	Borders ^a	Scotland ^b	100	(23,125,000)	100	(112,300)
Total Labour Force	100	(2,085,600)	100	(23,125,000)	100	(23,125,000)	100	(112,300)
Primary Sector	15.4	(312,300)	3.9	(912,000)	15.4	(312,300)	3.9	(912,000)
Agriculture	13.2	(270,900)	1.8	(423,000)	13.2	(270,900)	1.8	(423,000)
Forestry	1.3	(26,400)	0.6	(15,600)	1.3	(26,400)	0.6	(15,600)
Fishing	0.6	(12,000)	0.4	(8,400)	0.6	(12,000)	0.4	(8,400)
Secondary Sector	39.1	(798,300)	38.0	(8,790,000)	39.1	(798,300)	38.0	(8,790,000)
Textiles	32.1	(654,000)	3.2	(737,000)	32.1	(654,000)	3.2	(737,000)
Engineering and Electrical Goods	3.1	(63,600)	10.0	(2,310,000)	3.1	(63,600)	10.0	(2,310,000)
Other Manufacturing	3.9	(80,700)	24.8	(5,743,000)	3.9	(80,700)	24.8	(5,743,000)
Tertiary Sector	45.5	(927,300)	58.1	(13,433,000)	45.5	(927,300)	58.1	(13,433,000)
Construction	8.5	(175,500)	6.7	(1,554,000)	8.5	(175,500)	6.7	(1,554,000)
Transportation and Communication	2.4	(49,200)	7.0	(1,610,000)	2.4	(49,200)	7.0	(1,610,000)
Distributive Trades	9.8	(201,600)	12.2	(2,832,000)	9.8	(201,600)	12.2	(2,832,000)
Insurance, Banking and Finance	1.6	(32,400)	2.9	(675,000)	1.6	(32,400)	2.9	(675,000)
Professional and Scientific Services	9.5	(196,500)	11.9	(2,753,000)	9.5	(196,500)	11.9	(2,753,000)
Miscellaneous Services	9.4	(194,200)	9.2	(2,138,000)	9.4	(194,200)	9.2	(2,138,000)
Public Administration	3.3	(68,400)	6.2	(1,440,000)	3.3	(68,400)	6.2	(1,440,000)
Gas, Electricity and Water	1.1	(22,200)	1.8	(421,000)	1.1	(22,200)	1.8	(421,000)

92 unclassified by industry added to Primary Sector (Mining, etc.)

Sources: ^aDepartment of Employment, Edinburgh. ^bEmployment Statistics II a, June, 1968.^bEconomic and Statistics Unit, Edinburgh. ^cDigest of Scottish Statistics. No. 36, October, 1970, H.M.S.O., pp. 36, 37.^cCentral Statistical Office, London. Abstract of Regional Statistics. No. 5, 1969, H.M.S.O., p. 14.

TABLE LV

Growth Rates of Employment in the Border Counties

Industry	60-61	61-62	62-63	63-64	64-65	65-66	66-67	67-68	60-68
Agriculture, Forestry and Fishing	- 4.64	- 0.86	- 4.94	- 5.19	- 3.76	- 0.83	- 9.96	- 1.32	- 25.80
Textiles	- 1.04	- 2.91	+ 0.80	+ 2.37	+ 0.98	- 0.30	- 2.78	- 4.41	- 7.23
Engineering and Electrical	+ 24.37	+ 17.85	- 1.72	+ 19.55	- 4.72	+ 30.58	+ 3.20	- 1.96	+ 116.79
Other Manufacturing	0.0	+ 2.08	- 4.24	- 11.82	- 0.76	- 3.97	- 3.16	+ 4.95	- 16.43
Construction	+ 4.41	+ 9.01	+ 8.64	+ 1.75	+ 4.83	- 7.39	+ 9.92	+ 2.36	+ 37.44
Gas and Electricity	+ 1.59	- 5.38	- 1.90	+ 4.81	- 13.53	- 3.45	- 0.01	+ 18.06	- 3.19
Transportation and Communication	+ 2.43	- 4.30	+ 0.07	- 12.27	- 6.46	- 7.31	- 3.94	- 15.60	- 39.14
Distributive Trades	- 1.32	+ 2.97	- 2.74	- 3.34	+ 1.99	+ 4.26	- 4.91	- 3.09	- 6.38
Insurance, Banking and Finance	+ 6.57	+ 10.93	+ 1.61	- 0.53	- 0.35	- 1.60	- 1.63	+ 11.76	+ 28.81
Professional and Scientific	+ 12.37	- 0.28	+ 5.74	- 7.30	+ 1.38	+ 15.06	- 0.36	+ 1.84	+ 30.02
Miscellaneous Services	- 5.61	+ 3.87	- 2.00	- 0.05	+ 6.85	- 4.36	- 5.27	- 4.11	- 10.86
Public Administration	+ 1.72	+ 1.04	+ 4.63	- 20.90	+ 6.53	+ 3.06	+ 1.34	- 10.47	- 15.27
Borders' Total Growth	- 0.39	+ 0.52	- 0.01	- 2.32	+ 0.73	+ 0.77	- 2.71	- 2.08	- 5.43

Source: Department of Employment, Edinburgh.

TABLE LVI

Employment and Employment Changes in the Borders from 1960 to 1968

Borders' Total Employment Industry	60	61	62	63	64	65	66	67	68	60-68
Agriculture, Forestry and Fishing	7,938	7,570 (-368)	7,505 (-65)	7,134 (-371)	6,764 (-370)	6,516 (-254)	6,456 (-54)	5,813 (-643)	5,890 (+77)	(-2,048)
Textiles	13,517	13,377 (-140)	12,989 (-389)	13,093 (+104)	13,403 (+310)	13,534 (+131)	13,493 (-41)	13,118 (-375)	12,540 (-578)	(-977)
Engineering and Electrical	554	689 (+135)	812 (+123)	798 (-14)	954 (+156)	909 (-45)	1,187 (+278)	1,225 (+38)	1,201 (-24)	(+647)
Other Manufacturing	1,826	1,826 (+0)	1,864 (+38)	1,785 (-79)	1,574 (-211)	1,562 (-12)	1,500 (-62)	1,454 (-46)	1,526 (+72)	(-300)
Construction	2,401	2,507 (+106)	2,733 (+226)	2,969 (+236)	3,021 (+52)	3,167 (+146)	2,933 (-234)	3,224 (+291)	3,300 (+76)	(+899)
Gas and Electricity	439	446 (+7)	422 (-24)	416 (-8)	436 (+20)	377 (-59)	364 (-13)	360 (-4)	425 (+65)	(-14)
Transportation and Communication	1,520	1,557 (+37)	1,490 (-67)	1,500 (+10)	1,316 (-184)	1,231 (-85)	1,141 (-90)	1,096 (-45)	925 (-171)	(-595)
Distributive Trades	4,093	4,039 (-54)	4,159 (+120)	4,045 (-114)	3,910 (-135)	3,988 (+78)	4,158 (+170)	3,954 (-204)	3,832 (-122)	(-261)
Insurance, Banking and Finance	472	503 (+31)	558 (+55)	567 (+9)	564 (-3)	562 (-2)	553 (-9)	544 (-9)	608 (+64)	(+136)
Professional and Scientific	2,845	3,197 (+352)	3,188 (-9)	3,371 (+183)	3,125 (-246)	3,168 (+43)	3,645 (+477)	3,632 (-13)	3,699 (+67)	(+854)
Miscellaneous Services	4,136	3,904 (-232)	4,055 (+151)	3,974 (-81)	3,972 (-2)	4,244 (+272)	4,059 (-185)	3,845 (-214)	3,687 (-158)	(-449)
Public Administration	1,513	1,539 (+26)	1,555 (+16)	1,627 (+72)	1,287 (-340)	1,371 (+84)	1,413 (+42)	1,432 (+19)	1,282 (-150)	(-231)
Borders' Total Growth or Decline	41,296	41,134 (-162)	41,348 (+214)	41,345 (-3)	40,387 (-958)	40,681 (+294)	40,995 (+314)	39,883 (-1,112)	39,052 (-831)	(-2,244)

Source: Department of Employment, Edinburgh.

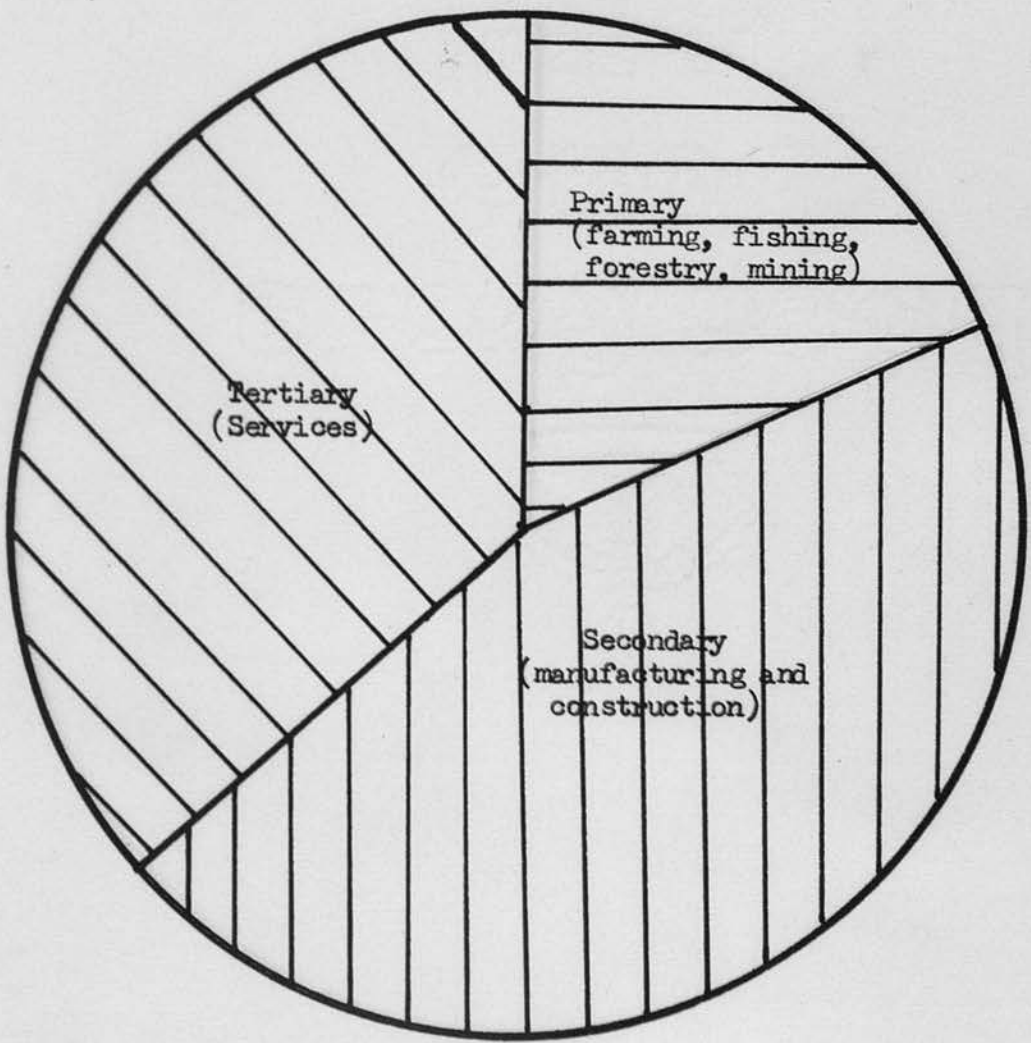
provided the bright spot of the manufacturing sector. Despite minor setbacks during three of the eight years, this industry grew rapidly and employed over twice as many in 1968 as in 1960. Unfortunately the growth in absolute terms was not so spectacular, since only 554 persons worked in this industry in 1960, as Table LVI reveals. Nonetheless, it is an example of a successful new initiative toward diversification and attraction of male-employing industries which has important implications for the future. An excellent effort by housing authorities, which will be discussed in a later section, encouraged expansion in the construction industry which resulted in an eight-year growth equal to thirty-seven and a half per cent of the 1960 labour force. The closure of the 'Waverley' railway line and the reduction of bus services is reflected in the drop of thirty-nine per cent in employment in transportation and communication, a loss of 595 jobs by 1968 with further reductions in store. Contraction of this industry always constitutes a major blow to development hopes, as it is one of the four services commonly cited as crucial to development potential. Of the other three, public administration, insurance, banking and finance, and professional and scientific services, the first declined by fifteen per cent, or 231 jobs, while the latter two exhibited intermittent, but encouraging growth of twenty-nine and thirty per cent (136 and 854 jobs) respectively.

Figures LIII, IV, V, and VI provide a visual representation of the changing employment situation in the Borders between 1961 and 1973. They are drawn from some of the data in Table LVII. The most consistent trend revealed in the figures is the shrinkage of primary employment. As is shown in Table LVII, this sector

Figure LIII

The Borders: Number Employed in Three
Major Sectors as Percentage of
Population^a

1961



^aconstruction is included in the Secondary Sector in figures L III, IV, V, VI.

Source: Figures LIII, IV, V, VI Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region, 1975. Council Office, Newtown St. Boswells, March, 1975, p. 5.

Figure LIV

The Borders: Numbers Employed in Three
Major Sectors as Percentage of Employed Population

1966

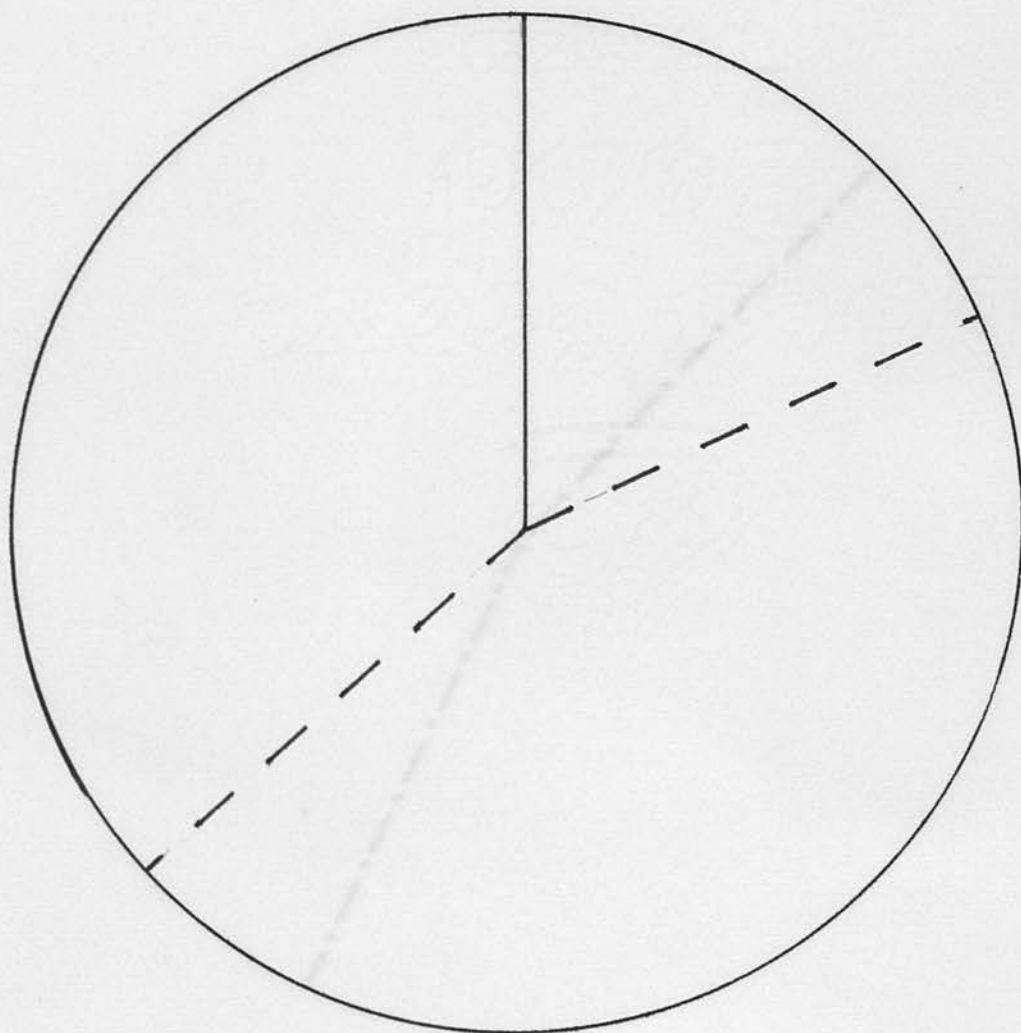


Figure IV

The Borders: Numbers Employed in Three
Major Sectors as Percentage of Employed Population

1971

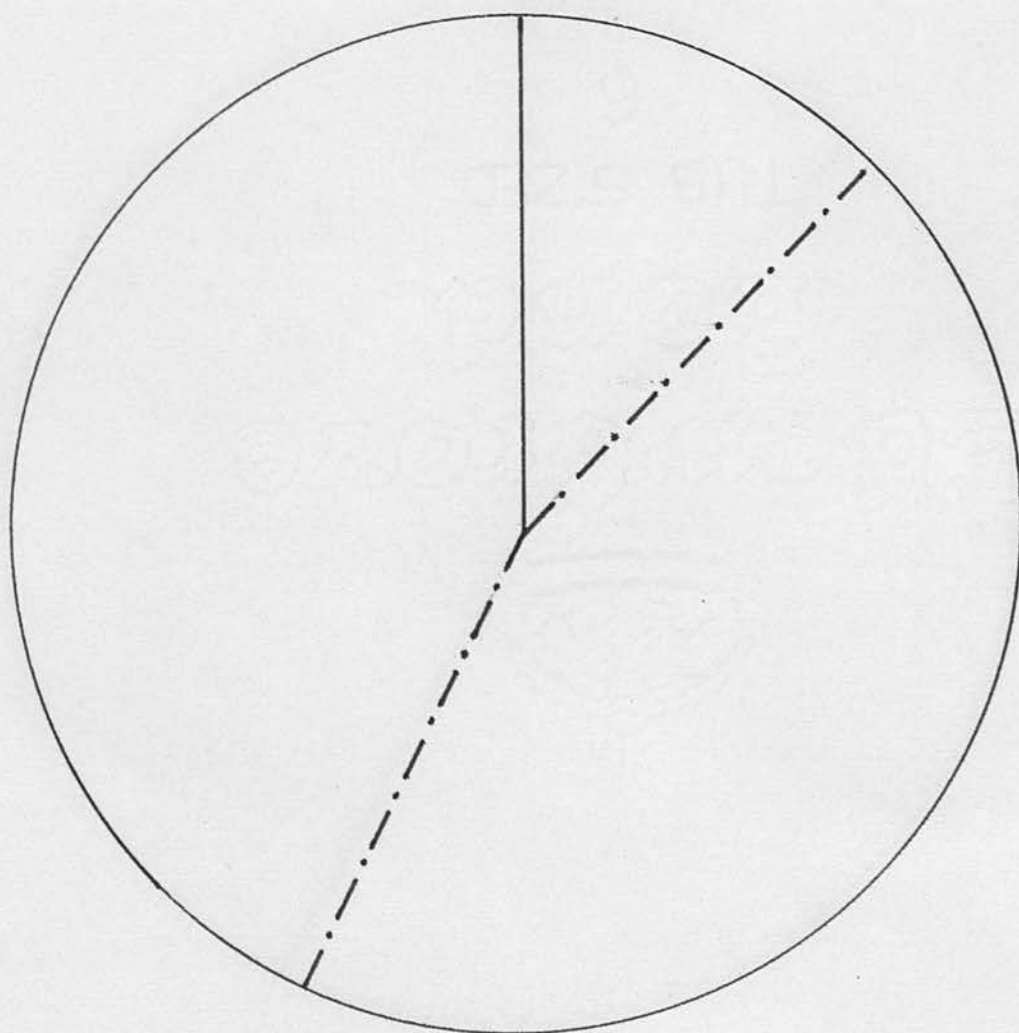
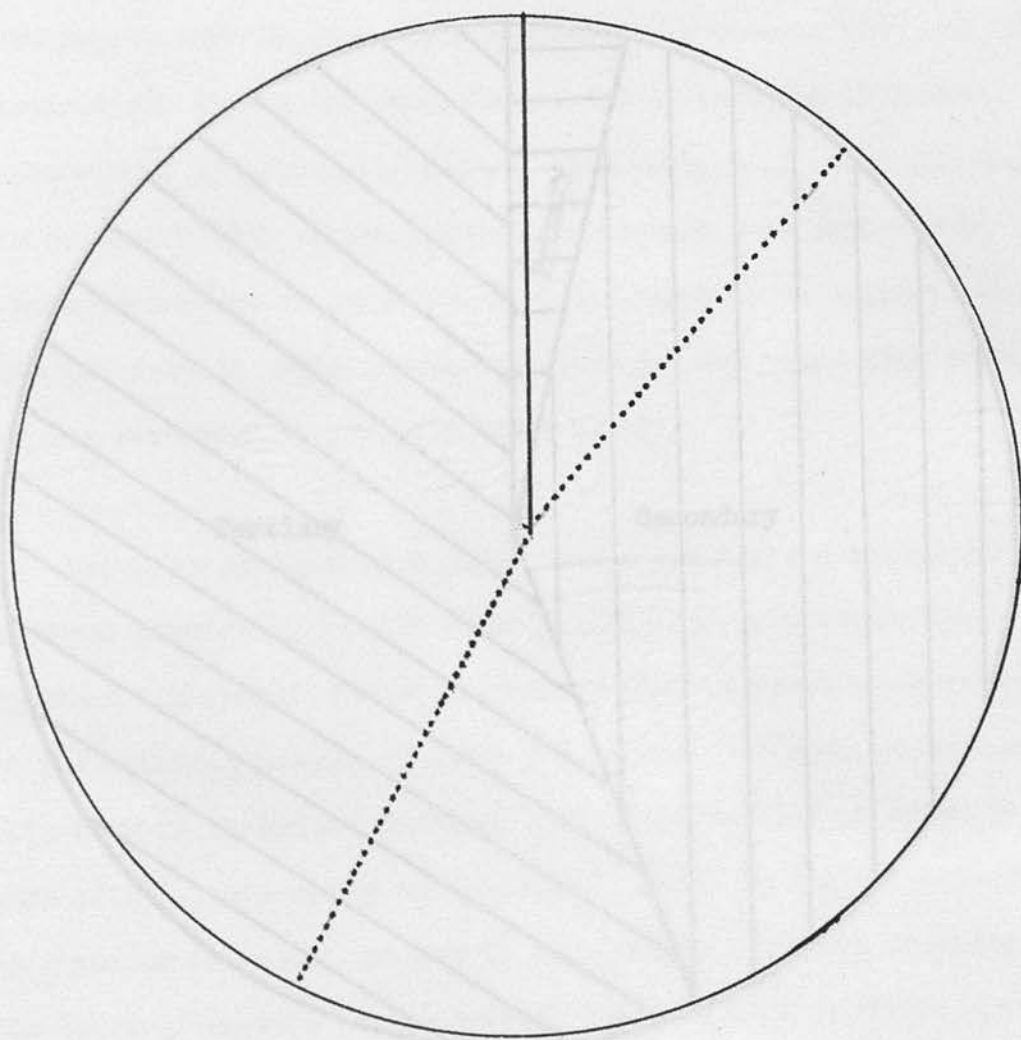


Figure LVI

The Borders: Numbers Employed in Three
Major Sectors as Percentage of Employed Population

1973

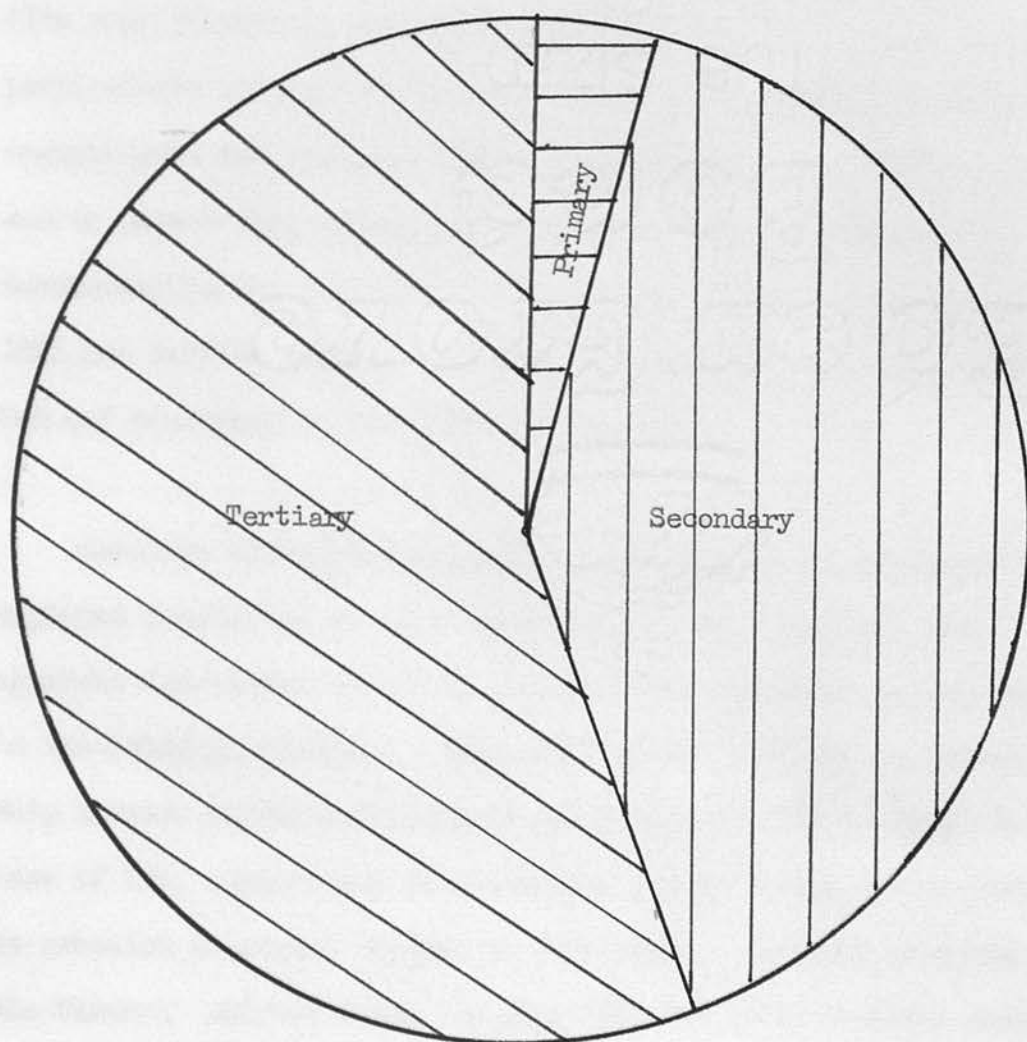


Source: Scottish Border Local Authorities Joint Committee,
Regional Planning Unit. The Borders District,
Council Office, Newmarket St. Newcastle, North, N.T.S.

Figure LVII

Scotland: Numbers Employed in Three
Major Sectors as Percentage of Employed Population

1973



Source: Scottish Border Local Authorities Joint Committee,
Regional Planning Unit. The Borders Region, 1975.
Council Office, Newtown St. Boswells, March, 1975, p. 5.

employed successively fewer workers in each of the years cited and represented a successively smaller proportion of the total workforce of the region. Between 1961 and 1973 the primary workforce fell from 18.5% of regional employment to 11.3%. In absolute terms it lost almost half of its numbers, from 7,589 to 4,332.

The secondary sector plus construction grew both in numbers employed and as a percentage of the total workforce during the first five year intervals, then fell significantly between 1966 and 1971, particularly during the recession period of 1970 and 1971 when unemployment was unusually high. (See Table II.) The shrinkage was so severe that almost 2,000 fewer workers were employed in manufacturing and construction in 1971 than were so employed in 1961 and despite rapid growth over the next two years this sector had not recovered to the 1961 level by 1973.

Services employed more people and a greater percentage of the employed population in 1973 than in 1961, but once again the apparent improvement fails to stand up when assessed against trends in the national economy. Table LVII shows that when the relationship between Border and Scotland statistics in 1961 is taken as a base of 100, comparisons of subsequent growth in the two economies is revealed in annual changes in this ratio. Despite progress in the Borders' service sector between 1961 and 1973, a faster growth rate throughout Scotland resulted in a fall in the services base to 98. For every 1% of the regional workforce devoted to services in 1961, 1.30% of the Scottish workforce was thus employed; by 1973, for every 1% of the Borders' workforce in services, Scotland had 1.32%.

Manufacturing and construction improved in the Borders at a faster rate than generally in Scotland, so that by 1973 the base of 100 in this sector had increased to 113.

The dramatic fall in employment in the primary sector still fell short of the constriction at the national level^a. The 1961 base for this sector had grown to 140 by 1973. Clearly, the dependence on agriculture in the Borders was far greater in 1973 than it had been in 1961 by comparison to Scotland.

If the traditional design for economic development, dependent on the growth of manufacturing is accepted, a reduction in the importance of the primary sector and an enlargement and diversification of the secondary and tertiary sectors is necessary to create a base for future development. These realignments are occurring, but the pace is too slow by comparison to the rate of change in the national economy. As a consequence the Borders remains disadvantaged in the competition for new industry.

In the competition with other parts of Scotland and the United Kingdom the Borders suffers firstly because of the small size of its employed population. Figure LVIII illustrates this difficulty diagrammatically. In 1961 the workforce of the Borders exceeded 41,000³. It was just over 36,000 in 1971⁴ and

^aAlthough primary employment dropped almost 50% in the Borders, in Scotland it fell from 8.7% of total employment to 3.8%, a drop of over 56%.

³See Table II.

⁴Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Council Offices, Newtown St. Boswells, March, 1975, p. 5.

approximately 39,000⁵ in 1973. There is little scope in such a small workforce to generate the conditions necessary to spontaneous growth. A geographical concentration of this workforce would be helpful, but as is evident from Table LVIII and Figure LIX, no such concentration exists. Hawick and Galashiels burghs contain the largest pools of labour by far, yet have only 18% and 14% of the economically active population respectively. No other centre has as much as 7% of the economically active population of the region⁶. An indication of the dispersion of the economically active population is provided by the division into burghal and district of county residents. Thirty-seven per cent live outwith the twelve small burghs, a high percentage which reflects the importance of agriculture in the regional economy and which emphasizes the absence of the population concentration necessary to the propagation of mutually complementary services.

The Johnson-Marshall strategy⁷ for the development of the Central Borders proposed a "regional city" to overcome the dispersion of population and services, with existing Border communities sharing one another's facilities and amenities. But, of the 25,000 population growth by 1980 proposed in the governments' White Paper⁸,

⁵Ibid.

⁶See Table LVIII.

⁷Scottish Development Department, op. cit.

⁸Scottish Office, Edinburgh. The Scottish Economy 1965-70: a plan for expansion. H.M.S.O., 1966. (Cmd. 2864)

Table LVIII

The Borders: Numbers Economically Active 1971

County	Burghs	Numbers	%	Districts of County	Numbers	%
Berwick	Coldstream	703	(1.2)	East	3,023	(5.1)
	Duns	1,025	(1.7)	Middle	2,738	(4.6)
	Eyemouth	1,323	(2.2)	West	2,540	(4.3)
	Lauder	353	(0.6)			
Peebles	Innerleithen	1,373	(2.3)	Broughton	543	(0.9)
	Peebles	3,348	(5.7)	Innerleithen	840	(1.4)
				Linton	1,188	(2.0)
				Peebles	654	(1.1)
Roxburgh	Hawick	10,781	(18.3)	Hawick	2,248	(3.8)
	Jedburgh	2,499	(4.2)	Jedburgh	1,644	(2.8)
	Kelso	3,047	(5.2)	Kelso	1,962	(3.3)
	Melrose	1,154	(2.0)	Melrose	2,821	(4.8)
Selkirk	Galashiels	8,070	(13.7)	North	978	(1.7)
	Selkirk	3,587	(6.1)	South	514	(0.9)
	Totals	37,263	(63.2%)		21,693	(36.8%)
	Grand Total				58,956	

Source: Census 1971, Scotland. Population Tables.

Johnson-Marshall allocated 20,000 to a central corridor stretching from Galashiels to Newtown St. Boswells, thus recognizing the need for a growth centre with a sufficient population density to provide a trigger to regional expansion. Approximately 16,000 people resided in this corridor in 1971⁹. If 20,000 settled there by 1980, the corridor would contain more than a third of the economically active population of the region¹⁰ and the Borders would have the regional centre it has needed for so long.

⁹See Table LVIII.

¹⁰This calculation is derived from the statistic used by the Borders Regional Planning Unit in their interim report, "A Profile of the Borders 1974", and assumes a continuation of recent population trends.

Dispersion of Employment in the Borders Employment Exchange Areas

As with so many of the "ad hoc" boundaries set up over the years by a variety of governmental and other agencies, employment exchange areas do not adhere to county borders. Their usefulness as measures of regional employment are therefore limited. In the absence of better criteria, however, they provide some assistance in delineating differences in employment emphases in the region. They also emphasize the basic problems which underly the continuing decline in the economy of the region; the problems of industrial concentration, of reliance on the primary sector, of a too-small and falling population, of out-migration of young male workers, of the lack of a regional focus and growth point, of a business and service infrastructure incapable of initiating or sustaining large-scale indigenous industrial growth. The next chapter will assess the population of the region in more detail. It will be seen that the characteristics of the population provide one interface between the economy of the region and development aspirations.

Figure LIX

The Borders: Numbers Economically Active 1971

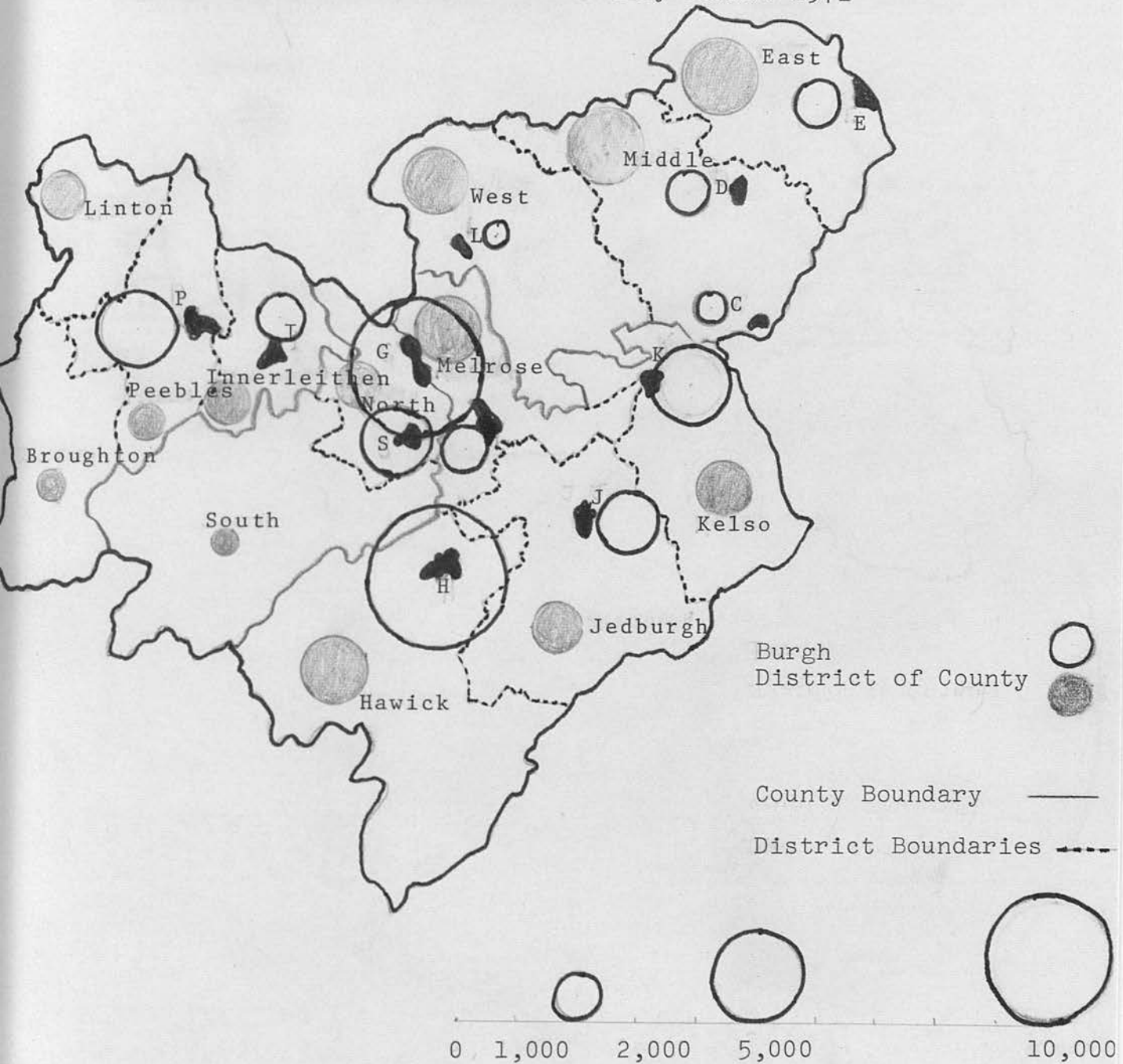
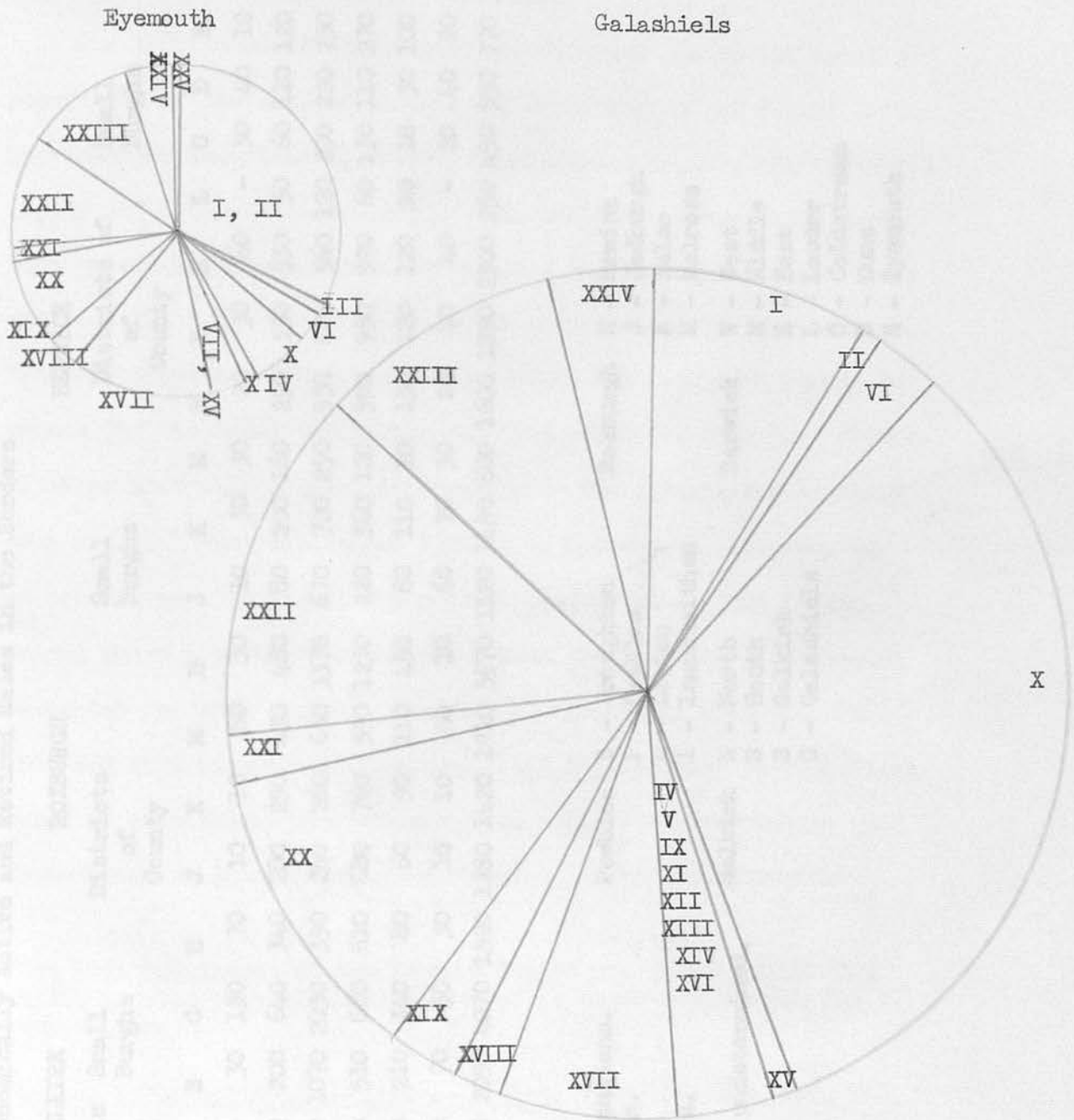
Source: Census 1971, Scotland. County Tables.

Figure LX

Estimated Numbers of Employees in Employment Exchange Areas
in the Borders 1967



Source: Department of Labour, Edinburgh. Employment Exchange
Records IIA June, 1967.

Table LIX

Economically Active and Retired Males in the Borders

	PEEBLES										SELKIRK					ROXBURGH					BERWICK									
	Districts of County					Small Burghs					Districts of County					Small Burghs					Districts of County					Small Burghs				
	B	P	L	I	P	I	N	S	S	G	H	J	K	M	H	J	K	M	W	M	E	L	C	D	E	Totals	%			
I	20	-	60	40	90	20	40	-	30	130	70	10	10	80	30	10	30	30	20	30	60	-	30	40	10	890	2.5			
II	120	130	290	90	320	120	150	140	200	640	340	280	290	430	480	80	200	160	290	350	530	50	60	110	120	5,970	17.0			
III	70	80	170	150	1870	400	150	50	1070	2030	390	240	260	650	3370	670	720	250	550	400	560	120	200	220	250	13,890	39.6			
IV	110	160	110	150	480	290	310	230	510	880	610	680	760	590	1230	220	360	120	590	950	990	60	130	110	270	10,900	31.1			
V	20	10	20	10	210	10	50	300	210	340	80	60	90	110	450	80	110	10	130	120	120	20	10	30	100	2,700	7.7			
N.C.	-	-	-	30	20	20	40	20	70	50	30	10	10	60	10	60	70	30	20	40	40	-	20	40	20	710	2.0			
Tot.	340	380	650	470	1990	860	740	740	2090	4070	1520	1280	1420	1910	5570	1120	1490	600	1600	1890	2300	250	450	550	770	35,050				

LEGEND:

Class I - Professional, etc., occupations.

Class II - Intermediate occupations.

Class III - Skilled occupations.

Class IV - Semi-skilled occupations.

Class V - Unskilled occupations.

Not Classified - armed forces and undetermined.

Peebles	B - Broughton	Roxburgh	H - Hawick
	P - Peebles		J - Jedburgh
	L - Linton		K - Kelso
	I - Innerleithen		M - Melrose
Selkirk	N - North	Berwick	W - West
	S - South		M - Middle
	S - Selkirk		E - East
	G - Galashiels		L - Lauder
			C - Coldstream
			D - Duns
			E - Eyemouth

Source: Sample Census 1966.
Ward Library Tables.

Chapter 4. Characteristics of the Population of the Borders

Distribution and Trends in the Population

The 1971 Census of Population for Scotland places the total population of the Central Borders and Berwickshire^a at 97,282, with Berwickshire contributing 20,779, Peeblesshire 13,676, Roxburghshire 41,959 and Selkirkshire 20,868¹. The 1961-1971 intercensal period thus showed a continuance of the decline in the population of these counties which has been registered in every census in this century. Table PI shows how consistent this decline has been from census to census for the total population and from county to county. Figure PI shows that this decline is contrary to the pattern for Scotland as a whole. What the census figures do not reveal, however, may be equally as significant for present projections. The 1971 Census shows a population for the region greater than governmental estimates for 1968², 1969³, and 1970⁴. Accepting that the 1968, 1969 and 1970 figures were estimates and the recovery to 1971 falls short of statistical significance, the estimates nevertheless demonstrate an interesting consistency. A second interesting

^aThe 1971 population of the Borders Region was 98,477, including 1,195 in that part of Midlothian that is to be included in the new region.

¹Census 1971, Scotland Population Tables. pp. 100, 106, 107, 108.

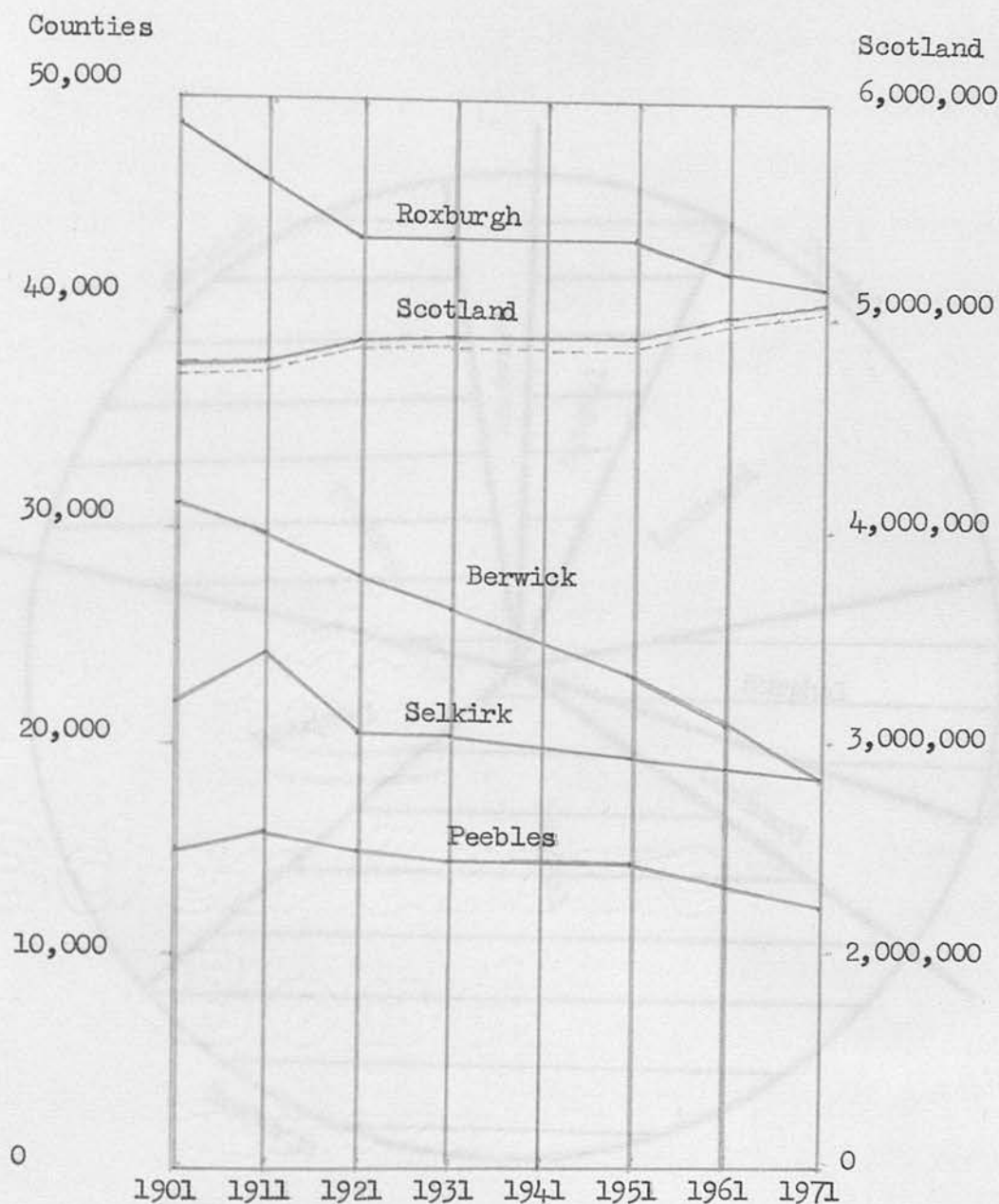
²Royal Commission on Local Government in Scotland 1966-1969, H.M.S.O. 1969, pp. 26, 27.

³Scottish Development Department, Edinburgh. Rates and Rateable Values in Scotland 1969-70, H.M.S.O. 1970, pp. 8, 20, 24.

⁴The Registrar General for Scotland, Edinburgh. Annual Estimates of the Population of Scotland, 1970, H.M.S.O. 1971, pp. 5, 8, 9.

FIGURE PI

Population Change in the Borders 1901-1971

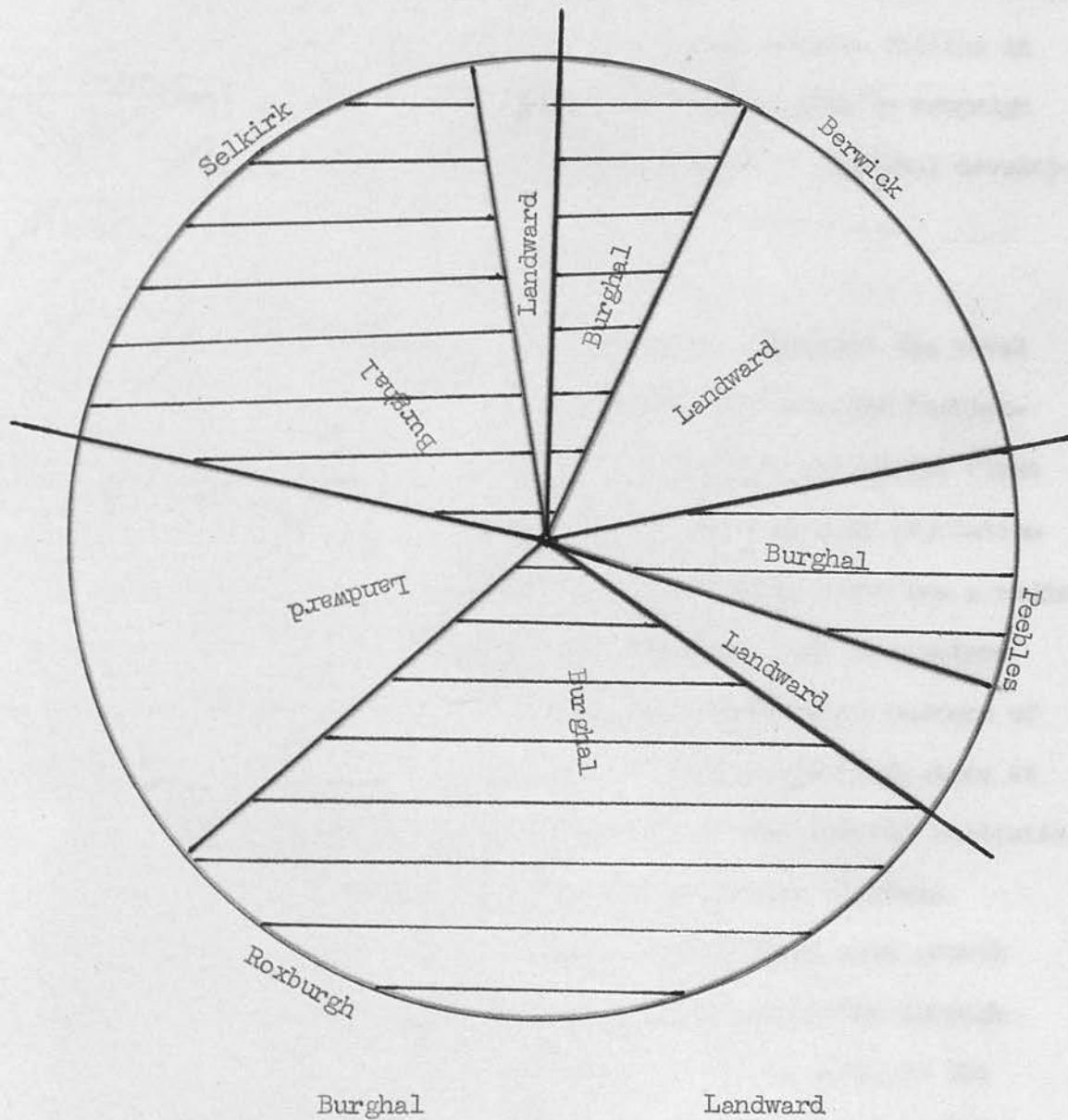


Sources: For 1901 to 1961, for the Central Borders, Scottish Development Department, Edinburgh. The Central Borders: a plan for expansion. H.M.S.O. 1968, Vol. 2, p. 68.

For 1901 to 1961, Berwickshire, Knowles, Basil. A Rural Policy for Berwickshire, Southfield Lodge, Duns: County Planning and Development Office, 1972, p. 24.

For 1971, Borders Regional Planning Unit, Newtown St. Boswells. A Profile of the Borders 1974: Interim Report, June, 1974, p. 2.

Figure PII
Borders Population Distribution, Burghal and Landward



Source: Census 1971: Scotland. County Reports.

feature is that for 1969, 1970 and 1971 the regional population is reckoned as larger for each succeeding year.^b The potential importance of the positive 1968-1971 differential lies, not in the small increase itself, but in an arresting of the decline. If this reversal of the trend is the result of the considerable efforts of development officials in the Border counties over the past few years, there is reason to hope that solutions to the 80-year decline in population are being found and that the Border Build Up campaign is successfully coping with the major obstacle to regional development plans.

Table PI is interesting in other ways. Although the total population figures show an almost unbroken decline, the Peeblesshire population actually moved against the flow during the first two decades of this century and still showed a greater population at mid-century than at the beginning, after which there was a sudden loss of stability and the population fell over 12 $\frac{1}{2}$ % in eighteen years. Roxburghshire, on the other hand, follows the pattern of the overall figures fairly closely, as might be expected since it contributes almost half of the population of the combined statistics. Selkirkshire too, follows the trend of the overall figures, although this county, like Peeblesshire experienced some growth between 1901 and 1911 and a virtually static population through the 1920's. Peeblesshire's divergence is due in part, to the growth in popularity of its county town and some of its western villages as retirement communities during the late decades of the 19th and the early decades of the 20th centuries.

^bThe totals were: 1968 - 97,300, 1969 - 96,730, 1970 - 96,748, 1971 - 97,282.

The Berwickshire figures exhibit the most drastic loss, over 32 $\frac{1}{2}$ % since 1901. But even these figures understate the reduction which has occurred. Berwickshire had a population of 35,316⁵ in 1861, so the 1971 figure represents a fall of 43% from this high point and reflects the constriction in agricultural employment which has affected Berwickshire and its farm-oriented economy more than the counties of the Central Borders.

Hidden in the Table PI data is the dramatic countryside to borough migration which occurred, particularly up to 1931. This exodus of country dweller into the towns was most pronounced in Berwickshire and in the high uplands of the Central Borders. It occurred in all four counties. It is a flow that is far from checked.

The size of the four Berwickshire small burghs included in Table PII, the largest of which has a population of 2,530, highlights an essential distinction between Berwickshire and the Central Borders. Although the Borders Region as a whole is predominantly rural and agricultural based^c, this emphasis is so much greater in Berwickshire that no service centre of any size exists within the county borders. Berwick-upon-Tweed in Northumberland, Central Border towns such as Galashiels and Kelso and other centres outwith the county provide the specialist and

⁵Berwick County Council, Report of the Planning and Development Officer. Earlston: Population and Development, Duns, 6 July, 1971.

^cThe 1971 census of population indicates 13.8% of those employed in the Borders work in agriculture, forestry or fishing as compared to 4.1% so employed throughout Scotland.

shopping facilities required by the residents of the Eastern Borders. Whereas 70% of the population of the Central Borders is urban^d, less than 30% of the residents of Berwickshire live in urban environments and even these live in small and relatively remote communities. This difference is manifest in Table PII and Figure PIII.

Table PII

Landward and Burghal Population of the Borders 1971

	Peebles	Roxburgh	Selkirk	Central Borders	Berwick	Borders
Total						
Population	13,676	41,959	20,868	76,503	20,779	97,282
Landward	5,574	14,762	2,575	22,911	14,599	37,510
Burghal	8,102	27,197	18,293	53,592	6,180	59,772
% Landward	40.8	35.2	12.3	29.9	70.3	38.6
% Burghal	59.2	64.8	87.7	70.1	29.7	61.4

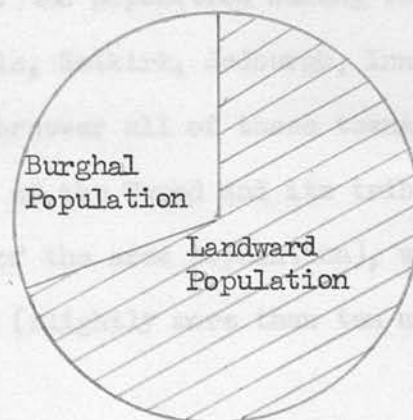
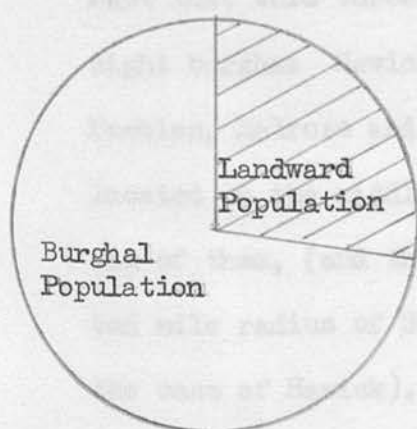
Source: Census 1971: Scotland. Population Tables.

Figure PIII

Landward and Burghal Populations in the Central Borders and Berwickshire

Central Borders

Berwickshire



^dThe term "urban" is used here and throughout this paper to denote burghal as opposed to landward population.

This distinction between the Eastern and Central Borders frequently diminishes the value of intercounty comparisons involving Berwickshire. As a consequence Berwickshire will be considered separately whenever its inclusion with the Central Borders would tend to obscure rather than clarify. This procedure will be followed in the section below, the Central Borders frequently being examined as a unit, then along with Berwickshire. Comparisons between the two areas will be made so that both intraregional differences and the nature of the total Borders Region may be kept constantly in mind.

Tables PIII, PIV, and PV illustrate the concentration of the sparse population of the Borders, and particularly of the three Central Border counties. Three out of every four residents of the Central Borders live in industrial urban areas. (Melrose alone, of the major Central Borders' burghs, has no hosiery or woollen mills. It exists as a high amenity residential area and as a tourist centre.) The concentration is further accented by the fact that this three-quarters of the population belong to just eight burghs: Hawick, Galashiels, Selkirk, Jedburgh, Innerleithen, Peebles, Melrose and Kelso. Moreover all of these towns are located on the middle zone land of the Tweed and its tributaries, six of them, (and three-fifths of the area population), within a ten mile radius of St. Boswells (slightly more than ten miles in the case of Hawick).

Table PIII

Burghal Population Density in the Borders, 1971

	Burgh	Population	Area (Hectares)	Persons per hectare
The Central Borders	Hawick	16,286	502	32.44
	Jedburgh	3,874	216	17.95
	Kelso	4,852	421	11.52
	Melrose	2,185	204	10.71
	Galashiels	12,609	700	18.01
	Selkirk	5,684	299	19.01
	Innerleithen	2,218	168	13.15
Berwick	Peebles	5,884	392	14.18
	Coldstream	1,278	95	13.45
	Duns	1,768	111	15.93
	Eyemouth	2,530	144	17.57
	Lauder	604	41	14.73

Source: Census 1971: Scotland. County Reports.

Table PIV

The Central Borders and Berwickshire: Landward Population Density 1971

County	Landward Population	Landward Area (Hectares)	Persons per hectare
Berwick	14,599	117,995	0.12
Peebles	5,574	89,379	0.06
Roxburgh	14,762	170,890	0.09
Selkirk	2,575	68,302	0.04
Central Borders	22,911	328,571	0.07
Borders	37,510	446,566	0.08

Source: Census 1971: Scotland. County Reports.

Table PV

The Central Borders and Berwickshire: County Population Density 1971

County	Population	Area (Hectares)	Persons per hectare
Berwick	20,799	118,386	0.18
Peebles	13,676	89,939	0.15
Roxburgh	41,959	172,233	0.24
Selkirk	20,868	69,301	0.30
Central Borders	76,503	331,473	0.23
Borders	97,282	449,859	0.22

Source: Census 1971: Scotland. County Reports.

With such a high proportion of a small population concentrated in a few burghs, few residents are left to populate the landward areas. The sparseness of the rural population is highlighted by Table PIV in which the average landward population of the Central Borders is shown as 0.07 persons per hectare or fewer than three persons per one hundred acres. Since the majority of these persons are found on lowland farms, on the plateaus and lower gentle slopes, it is clear that the uplands support few human inhabitants. Indeed, many of the highland areas have fewer than one person per square mile. This lowland emphasis may be seen in the higher number per hectare (0.09) resident in rural Roxburghshire which lies more in the middle zone and the Merse than either Peeblesshire or Selkirkshire. The 0.06 persons per hectare in landward Peeblesshire as compared to 0.04 for its upland neighbour reflects the relatively greater habitableness of the broad Peebles strath. Selkirk county's high density in the combined figures is accounted for by it being the smallest of the three counties, but possessing the second and fourth most populous towns. In the 1961 census, the percentage of Selkirkshire residents enumerated in burghs was the highest (85.5%)⁶ of Scotland's counties. The 1971 census places this percentage even higher; 87.7%⁷ of Selkirk county residents live in Galashiels and Selkirk towns according to these figures. By contrast, the absence of a major town is reflected in the high landward density (0.12 persons per hectare) for Berwickshire.

⁶General Registry Office, Edinburgh. Census 1961: Scotland, Vol. 3, Age, Marital Condition and General Tables. H.M.S.O., Edinburgh, 1965, p. XXXVIII.

⁷Census 1971: Scotland. County Reports.

Rural Population

Settlement in the Central Borders is everywhere marked by the effects of the hills as separating and isolating barriers to communication. Occasions such as the annual common ridings are celebrated in towns a few miles apart according to traditions which dictate numerous differences in observance. Community loyalties are keenly felt. Local preference is deep-rooted and may colour attitudes toward imported products, ideas or personnel.

Rural dwellings characteristically cluster together on or near the lowest available ground or on the peneplains that run along the lower slopes. The smallest grouping, the farmstead, may consist of the farmhouse, the barns, sheds and shelters and rows of workers' cottages. The number of people housed on the farmsteads varies according to the kind of farming practised, fifteen to thirty on the arable land of the middle Tweed, eight to fifteen or even fewer on the hill sheep farms. With increasing mechanization and higher labour costs more and more of the workers' cottages are unoccupied.

Tiny hamlets string along the river valleys a few miles apart. These increase in number and size in the descent to the middle zone confluences, but only a handful exceed a few dozen residents and almost none are growing. These owe their existence to factors of life that have changed dramatically in the past 200 years. A transportation revolution, the disappearance of the cottage hand-loom weaver, the replacement of scythe and sickle by the reaping machine, the competition from imported Canadian wheat, the introduction of the self-binder and other man-multiplying

equipment, the change in emphasis from mixed subsistence farming to sheep rearing, prosperity in the textile towns, all contributed to the decline of upland parishes, their villages and tiny service communities. Rural emigration began in the Borders as far back as 1800, but the rapid growth of the textile towns compensated for the farm population loss until the woollen industry too passed its zenith. After 1891 the overall population of the region began the decline so apparent in the 20th century figures of Table PI.

Comparison of Table PVI data for 1861 and 1969 demonstrates the magnitude of rural-urban transposition. In the former year 42,270 people lived in Central Border rural areas and 33,706 were urban dwellers; in the latter the corresponding figures were 23,686 and 52,525. Hence for every 100 people in the rural areas in 1861 there were only 56 in 1969, while for every 100 in the urban areas there were 156.

Table PVI

Population of Counties: Urban and Rural Distribution, 1861 and 1969

	Census 1861 ^a				Annual Estimates 1969 ^b			
	Urban		Rural		Urban		Rural	
	Population	%	Population	%	Population	%	Population	%
	Actual	of Total	Actual	of Total	Actual	of Total	Actual	of Total
Peebles	3,175	27.8	8,233	72.7	7,873	59.0	5,466	41.0
Roxburgh	24,034	44.4	30,085	55.6	27,052	63.5	15,567	36.5
Selkirk	6,497	62.2	3,952	37.8	17,600	86.8	2,673	13.2
Central Borders	33,706	44.4	42,270	55.6	52,525	68.9	23,686	31.1

^aGeneral Registry Office, Edinburgh. Census of Scotland 1951, Vol. 3, General Volume. 1954, p. 11.

^bThe Registrar General for Scotland, Edinburgh. Annual Estimates of the Population of Scotland 1969, H.M.S.O., 1970, p. 9.

Table FVII, taken from the Johnson-Marshall Report, although it omits the data for Kelso, provides a useful description of the Central Borders that both reflects the history of the region and illustrates the continuance of landholding patterns no longer common elsewhere in Britain. Peeblesshire in 1961 still enumerated 28.7% of its population in villages of fewer than 1,000 persons, hamlets of less than 50, estates and farms. The farmsteads and estates have already been described. The hamlets too display the characteristic tight, defensible arrangement so necessary during the centuries of warfare and rieving. The average size of the settlements shows a consistency which suggests this historic purpose. In Peeblesshire, Roxburghshire and Selkirkshire respectively, the hamlets average 23, 27 and 28 persons. The estates average 27, 20 and 28 and the farms average 16, 20 and 18. There are, of course, large estates which contribute disproportionately to these statistics, but these only emphasize the uniqueness of the settlement pattern of the Central Borders where such anachronistic holdovers from feudal times fit easily into the scheme of tightly clustered communities huddled in the valleys, separated from other communities by steep hills.

Berwickshire too has many small scattered settlements. Indeed, as already noted, it is more rural than the Central Borders, but the Berwickshire communities are not separated by the steep-sided laws of the uplands.

Migration

Despite the very low rate of natural increase that has prevailed in the Borders for several decades, the decline of the

Table PVII
Central Borders - Settlement Analysis 1961¹

Settlement	Peeblesshire			Roxburghshire ²			Selkirkshire		
	No.	Population	% of Total	No.	Population	% of Total	No.	Population	% of Total
Small Burghs	2	7,847	55.4	3	22,077 ³	63.0	2	18,007	85.5
Towns (population 1,000 or more)	-	-	-	2	2,059	5.9	-	-	-
Villages (population 50-1,000)	10	2,325	16.4	15	3,500	10.0	5	371	1.8
Hamlets									
(population less than 50)	28	635	4.5	28	763	2.2	14	385	1.8
Estates	23	629	4.4	39	791	2.2	15	422	2.0
Farms	26	408	2.9	85	1,667	4.8	12	218	1.0
Groups of small holdings	1	65	0.5	1	15	-	-	-	-
Educational establishments	2	335	2.4	1	19	-	-	-	-
Hospitals	-	-	-	-	-	-	2	390	1.9
Religious Communities	-	-	-	1	61	0.2	-	-	-
Scattered population	-	1,912	13.5	-	4,092	11.6	-	1,259	6.0
Total		14,156	100.0		35,044	100.0		21,052	100.0

¹Based on 'Place Names and Population, Scotland H.M.S.O. 1967.

²That part of the county included in the Survey Area.

³Including, in the case of Hawick, suburbs outwith burgh boundaries (93 population).

Source: Scottish Development Department, Edinburgh. The Central Borders: a plan for expansion.
H.M.S.O., 1968, Vol. 2, p. 82.

population of the four counties does not stem from infertility. Table PVIII enumerates births and deaths per 1,000 population for the four counties and for Scotland as a whole for 1961 through 1966. The great disparity between the rates for Scotland and for the Borders is immediately evident. Scotland's natural growth varied between a low of 6.3 per thousand in 1966 and a high of 8.3 in 1964. By comparison, net change in Peebles ranges between a loss of 1.7 to a gain of 2.1, averaging a fractional decrease through a slight margin of deaths over births. Selkirk, with an average increase of 0.2 persons, barely survives through the six years on the credit side of the account and Roxburgh averages a gain of only 1.05 per thousand. Berwickshire, despite showing the highest positive balance for a single year, (2.5 in 1963), averages an increase of just 0.8 per thousand. Nevertheless, with the exceptions of 1961 and 1966, a slight natural increase is recorded. Tables PIX and PX summarize comparative birth and death rates in the Borders and in Scotland for the four quinquennial intervals from 1951 to 1970 and for 1971-1972 and 1973. The lower birth rates and higher death rates revealed in the three tables may be accepted as generally applicable to the Borders since 1891. The decline in population may not be explained by a lower reproductive rate, although this has certainly exacerbated the distress of Border officials who so often argued the viability of the region to a variety of ministries as they sought subvention for a weakening economy. Loss of population here, as elsewhere in Scotland, is the result of out-migration. Table PXI catalogues the intercensal changes recorded in the 1961 census to show that this was so in the 1950's. With the exception of Berwickshire, each

county showed a net natural increase during the decade, but every county suffered a loss of population which averaged fourteen times larger than the gain.

Age Distribution

Tables FVIII and PIX have already evinced the low birth rate characteristic of the Border counties over the past several decades. Average birth rates for the four counties are shown in Table FVIII to have been 15.2, 15.7, 15.8 and 15.9 per thousand for the 1961-1966 period as compared to 19.5 for all of Scotland. Additionally, the high death rates shown, 14.4, 15.7, 14.7 and 15.7, compare unfavourably with the 12.2 for Scotland. Both aberrations may be attributed in part to differences between the age structure of Border populations and that of Scotland as a whole. Low Border birth rates result from a combination of proportionately fewer women in the child-bearing age (15-45) and lower age-specific fertility rates allied to lower marriage rates. Higher death rates are an unavoidable concomitant of a population over-representative of the elderly. Table PXII presents a profile of the age distribution of Border and Scotland populations compiled from county reports in the 1951, 1961 and 1971 censuses which illustrate the different age structures. Figure PIV takes the 1971 female population and separates it into county, burgh and landward distributions to compare each to its corresponding proportion of male residents.

It will be seen from Table PXII that female shortages in the Borders occur in the child-bearing period and the pre-child-

Table PVIII

Birth and Death Rates per 1,000 Population in the Borders 1961-1966

	Berwickshire ^a		Peeblesshire ^b		Roxburghshire ^b		Selkirkshire ^b		Borders		Scotland ^a							
	Birth	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths						
961	15.7	+0.2	15.5	15.4	-1.7	17.1	15.4	-0.5	15.9	15.3	-0.4	15.7	15.5	-0.6	16.1	19.5	+7.2	12.3
962	15.3	+1.7	13.6	14.0	-0.8	14.8	17.1	+2.1	15.0	14.5	-0.3	14.8	15.2	+0.6	14.6	20.1	+7.9	12.2
963	15.8	+2.5	13.3	17.1	+2.1	15.0	15.1	+0.7	14.4	16.6	+0.2	16.4	16.2	+1.4	14.8	19.7	+7.1	12.6
964	14.7	+0.7	14.0	15.3	-0.9	16.2	16.6	+1.6	15.0	15.8	+1.1	14.7	15.6	+0.6	15.0	20.0	+8.3	11.7
965	14.7	----	14.7	17.5	+1.3	16.2	15.2	+0.8	14.2	16.9	+1.8	15.1	16.1	+1.0	15.1	19.3	+7.2	12.1
966	14.8	-0.2	15.0	14.8	-0.1	14.9	15.2	+1.4	13.8	16.1	-1.2	17.3	15.2	-0.1	15.3	18.6	+6.3	12.3
	15.2	+0.8	14.4	15.7	-0.01	15.7	15.8	+1.05	14.7	15.9	+0.2	15.7	15.6	+0.5	15.1	19.5	+7.3	12.2

Source: ^aBerwickshire County Planning and Development Office, Duns. A Rural Policy for Berwickshire. p.25.

^bScottish Development Department, Edinburgh. The Central Borders: a plan for expansion. H.M.S.O., 1968, Vol. 2, p. 68.

Table PIX

Birth Rates in the Borders and Scotland
(Per 1,000 Population)

	Scotland	Borders	Borders as % of Scotland
1951-1955	17.8	14.7	82.1
1956-1960	19.1	14.7	76.9
1961-1965	19.7	15.7	79.4
1966-1970	17.9	15.2	84.7
1971-1972	15.9	13.5	87.4
1973	14.3	12.4	86.7

Table PX

Death Rates in the Borders and Scotland
(Per 1,000 Population)

	Scotland	Borders	Borders as % of Scotland
1951-1955	12.1	14.2	117.6
1956-1960	12.0	14.3	119.0
1961-1965	12.2	15.0	122.9
1966-1970	12.1	14.6	120.3
1971-1972	12.2	14.8	122.0
1973	12.4	15.3	123.4

Source - Tables PIX and PX: Scottish Border Local Authorities
Joint Committee, Regional Planning Unit. The Borders Region 1975.
Newton St. Boswells, March, 1975, p.4.

Table PXI

The Borders: Population-Intercensal Change 1951-1961

County	Population	Natural Increase	Estimated Net gain or loss by migration
Berwickshire	-2,631	-211	-2,420
Peeblesshire	-1,076	+112	-1,188
Roxburghshire	-2,374	+513	-2,887
Selkirkshire	- 677	+ 72	- 749
Border Counties	-6,758	+486	-7,244

Source: General Registry Office, Edinburgh. Census 1961:
Scotland. Vol. 3, Age, Marital Condition and General
Tables, H.M.S.O., 1965, p. XXIII.

Table PXII

Age Distribution of Population
Scotland and the Border Counties, 1951, 1961, 1971

		Under 15		15-64		15-44	45-59	Per cent	
								65	60
								and	and
								over	over
		Male	Female	Male	Female	Female		Male	Female
Scotland	1951	26.3	23.1	64.9	42.6	18.5		8.8	15.7
	1961	27.6	24.2	63.8	37.1	20.8		8.6	17.8
	1971								
Borders	1951	23.7	19.7	64.8	40.0	20.4		11.5	21.0
	1961	25.0	20.8	63.1	33.9	20.7		11.9	23.5
	1971	24.6	21.2	62.0	32.8	19.0		13.3	26.9
Berwick	1951	23.6	21.5	64.9	38.6	20.3		11.4	19.5
	1961	24.7	21.9	63.0	34.3	22.0		12.3	21.8
	1971	24.4	21.5	60.8	32.2	19.5		14.8	26.8
Peebles	1951	25.0	20.5	63.3	38.3	19.8		11.7	21.4
	1961	26.4	21.2	61.0	32.0	21.6		12.6	25.2
	1971	25.2	21.7	60.2	30.8	17.7		14.6	29.8
Roxburgh	1951	24.0	19.4	64.7	39.1	20.2		11.3	21.2
	1961	24.9	20.8	63.7	34.3	21.3		11.4	23.6
	1971	24.8	20.1	62.9	34.6	19.9		12.2	25.5
Selkirk	1951	22.1	17.6	65.8	39.6	21.0		12.0	21.8
	1961	24.6	19.7	63.5	34.1	22.1		11.9	24.1
	1971	24.6	21.2	62.0	32.8	19.0		13.3	26.9

Sources: General Register Office, Edinburgh. Censuses of Scotland 1951, 1961 and 1971. Age, Marital Condition and General Tables and County Reports. H.M.S.O.

Table PXIII

Borders Region^a: Proportion of married women, per thousand

Age	Scotland	Borders
15-19	99	61
20-24	609	622
25-29	862	856
30-34	909	901
35-39	915	881
40-44	898	869

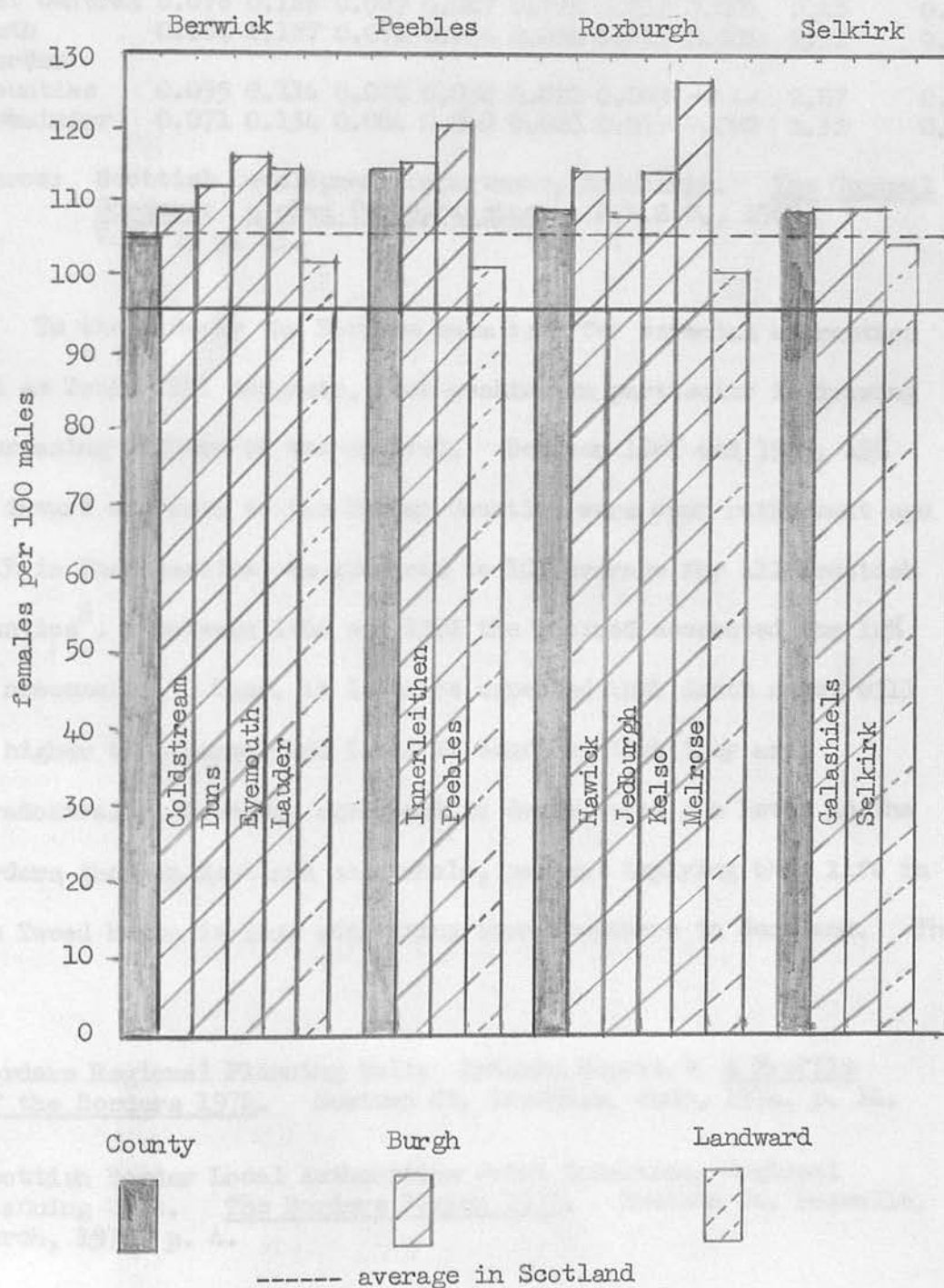
^aBorders Region including the parishes of Heriot and Stow from Midlothian.

Source: General Register Office, Edinburgh. Census 1971, Scotland. Preliminary Reports and Population Summary. p. 1, and Age, Marital Condition and General Tables. H.M.S.O., Table 10.

bearing period. Consequently, a low birth rate may be predicted for the foreseeable future. A further disadvantage, disclosed by Table PXIII, is the shortfall of married women among those in their child-bearing period. Finally, these handicaps combine to produce the situation detailed for the Central Borders in Table PXIV. The low fertility rate in the Border Counties by comparison to other parts of Scotland stands out in this table. For all ages under 45 they recorded a rate of just 0.055, six births per thousand fewer than the next lowest area and twenty-one births per thousand fewer than the most fertile section. Only one region had a lower rate for mothers under 20. The Borders had the lowest rate in the age group 20-24 and again for 25-29. They were second lowest for 30-34 year olds, at the bottom again for 35-39 year olds and for 1961 recorded a nil rate for women in the 40-44 year old group. Mean family size was much the smallest in Scotland. The proportion of infertile women was the highest in the country. Clearly, increased immigration by itself will not solve the population problems of the Border Counties. Rather, what is required is an influx of young married couples prepared to stay, to work, to raise their families there.

Figure FIV

Borders: Population ratio of females/males, 1971



Source: General Register Office, Edinburgh. Census 1971, Scotland.
County Reports. H.M.S.O., Table 3.

Table PXIV

Scotland: Fertility Rates 1961

Region	all ages under 45	under 20	20-24	25-29	30-34	35-39	40-44	Mean Family size	Proportion of in- fertile Women
North	0.062	0.114	0.076	0.040	0.024	0.014	0.003	2.37	0.16
Crofting Counties	0.067	0.131	0.087	0.05	0.030	0.016	0.005	2.47	0.16
Remainder	0.061	0.110	0.073	0.036	0.021	0.012	0.002	2.33	0.16
East Central	0.067	0.119	0.078	0.038	0.023	0.014	0.004	2.27	0.17
West Central	0.076	0.128	0.089	0.047	0.029	0.016	0.004	2.43	0.16
South	0.064	0.127	0.078	0.036	0.024	0.013	0.001	2.22	0.17
Border Counties	0.055	0.114	0.070	0.032	0.022	0.009	-----	2.07	0.18
Remainder	0.071	0.134	0.084	0.040	0.026	0.017	0.002	2.32	0.16

Source: Scottish Development Department, Edinburgh. The Central Borders: a plan for expansion. H.M.S.O., 1968, Vol. 2, p. 83.

To the elderly the Borders seem to offer especial attraction and as Table PXII suggests, Peeblesshire in particular is drawing increasing numbers of the retired. Between 1961 and 1966, 13% of inward migrants to the Border Counties were over retirement age (21% in Peeblesshire) as compared to 10% average for all Scottish counties⁸. Between 1966 and 1971 the retired accounted for 12% of newcomers⁹. Thus, it is to be expected that death rates will be higher than normal and Table PX confirms that they are. Paradoxically, however, age-specific death rates are lower in the Borders than in Scotland as a whole, perhaps implying that life in the Tweed basin is less enervating than elsewhere in Scotland. The

⁸ Borders Regional Planning Unit: Interim Report. A Profile of the Borders 1974. Newtown St. Boswells, June, 1974, p. 11.

⁹ Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Newtown St. Boswells, March, 1975, p. 4.

impressively low death rates for 65-74 year olds and the close approximation of Border figures to those of Scotland for the 75 and overs, despite the preponderance of these groups in the Borders' population, are apparent in Table PXV.

Table PXV

Death rates, per thousand

	Scotland			Borders ^a		
	1951	1961	1966	1951	1961	1966
0- 4	8.6	6.4	5.3	6.1	5.9	3.6
5- 9	0.7	0.4	0.4	0.9	1.2	0.1
10-14	0.5	0.3	0.3	0.7	0.0	0.0
15-24	1.2	0.6	0.7	0.8	0.3	0.4
25-34	1.9	1.0	1.0	1.3	0.9	0.1
35-44	3.2	2.6	2.6	3.0	2.6	1.8
45-54	8.2	7.1	7.1	7.6	7.7	6.6
55-64	20.4	19.2	18.3	21.1	17.6	15.6
65-74	50.3	45.9	43.9	45.9	41.9	40.7
75+	143.7	132.1	126.1	141.9	133.0	136.0

^aThese figures include Berwickshire in addition to the three Central Borders Counties.

Source: Scottish Development Department, Edinburgh. The Central Borders: a plan for expansion. H.M.S.O., 1968, Vol. 2, p. 9.

Development in any region ultimately is dependent on that portion of the population commonly referred to as the "working" age groups, usually defined as males 15-64 and females 15-59. To compare the workforce resources of the Central Border Counties with those of Scotland generally, Table PXII is reorganized below as Table PXVI. It will be seen for the three years for which comparisons are presented that only once (Selkirk working age males, 1951) does a Border County statistic exceed the comparable Scotland percentage and only one other County percentage equals the Scotland figure (Berwick working age males, 1951). The picture is consistently one of a male workforce somewhat smaller than average for

the country, a potential male workforce even smaller and a female population of workforce and pre-workforce ages much below average size.

Table PXVI

Scotland and the Border Counties: Population-Pre-Workforce
and Workforce Age Groups

	Per cent											
	Under 15 Males			Under 15 Females			15-64 Males			15-59 Females		
	1951	1961	1971	1951	1961	1971	1951	1961	1971	1951	1961	1971
Scotland	26.3	27.6		23.1	24.2		64.9	63.8		61.1	57.9	
Borders	23.7	25.0	24.6	19.7	20.8	21.2	64.8	63.1	62.0	60.4	54.6	51.8
Berwick	23.6	24.7	24.4	21.5	21.9	21.5	64.9	63.0	60.8	58.9	56.3	51.7
Peebles	25.0	26.4	25.2	20.5	21.2	21.7	63.3	61.0	50.2	58.1	53.6	48.5
Roxburgh	24.0	24.9	24.8	19.4	20.8	20.1	64.7	63.7	62.9	59.3	55.6	54.5
Selkirk	22.1	24.6	24.6	17.6	19.7	21.2	65.8	63.5	62.0	60.6	56.2	51.8

Changes in the age distribution pattern between 1961 and 1971 are shown in Table PXVII. For the Borders as a whole the male population increased by about 700. But the improvement suggested by this statistic is an illusion. The pre-workforce and workforce male groups fell during the decade by about 15 and 100 respectively, while the retirement age male population grew by about 740.

The figures for the female population indicate an even more discouraging advancement of the trend toward a retirement-aged population. The female population increased by about 225, but approximately 535 fewer were in the 15-44 age group, 850 fewer were in the 45-59 age group and the over 60 segment grew by more than 1850!

Table PXVII

Age Distribution of Population in the Borders 1961 and 1971

^a1961

	Berwick	Peebles	Roxburgh	Selkirk	Borders
Total (M&F) _c	22,437	14,156	43,183	21,052	100,828
Total Males	10,865	6,572	20,415	9,710	47,562
Total Females	11,571	7,584	22,742	11,341	53,238
Males 0-14	2,684	1,735	5,083	2,389	11,891
15-64	6,845	4,009	13,004	6,166	30,024
65+	1,336	851	2,327	1,155	5,669
Females 0-14	2,534	1,608	4,730	2,234	11,106
15-44	3,969	2,427	7,801	3,867	18,064
45-59	2,546	1,638	4,348	2,506	11,038
60+	2,523	1,911	5,367	2,733	12,534
	22,437	14,179	42,660	21,050	100,326

^b1971

Total (M&F)	20,780	13,675	41,960	20,870	101,735
Total Males	10,030	6,350	19,840	9,880	48,270
Total Females	10,750	7,330	22,120	10,990	53,465
Males 0-14	2,450	1,600	4,890	2,450	11,875
15-64	6,100	3,820	12,380	6,215	29,925
65+	1,480	925	2,565	1,205	6,410
Females 0-14	2,310	1,590	4,750	2,210	11,350
15-44	3,465	2,255	7,250	3,805	17,530
45-59	2,095	1,300	4,165	2,185	10,185
60+	2,880	2,185	4,955	2,800	14,395
	20,780	13,365	40,955	20,870	101,670

^cFigures for males and females and for age categories are calculated from the "tables of" Sex-age distribution per 1,000 total population of both sexes in the Age, Marital Condition and General Tables, 1961 Census.

Sources: ^aGeneral Register Office, Edinburgh, Census of Scotland 1961. Vol. 3, Age, Marital Condition and General Tables. H.M.S.O., 1965, pp. 89, 94, 96.

^bGeneral Register Office, Edinburgh, Census of Scotland 1971. County Reports, Table 8, Berwick, Peebles, Roxburgh, Selkirk, p. 6.

In many respects the Border counties demonstrate a remarkable consistency in age structure, as shown in Table PXVIII. The under 15 population for the four counties averages 22.9% of the total for all ages. Variations from this average are just 0.4%, 0.7%, 0.1% and 1.0% for the individual counties. With the exception of a 1.7% shortfall for Peeblesshire in the 15-44 division, approximations

to this average are even closer for the three other age groups concerned. Selkirkshire varies only 1.0%, 0.3%, 0.5% and 0.0% from the averages. This consistency is interesting in view of the gaps between the Borders figures and the averages for Scotland.

Similarities are also apparent in the analysis of burgh age structures, but the relative importance of textile manufacturing affects the burgh figures. Melrose, the one town that has spurned

Table PXVIII

	Border Counties: Population-Age Groups			
	Under 15	15-44	45-64	Percentage 65 and over
Berwick Co. ^a	23.3	35.4	27.3	14.2
Peebles Co. ^a	23.6	33.4	27.2	15.8
Roxburgh Co. ^b	22.8	36.0	26.9	14.5
Selkirk Co. ^a	21.9	35.4	27.8	14.9
Borders ^b	22.9	35.1	27.3	14.9
Scotland ^a	25.8		62.4 63.7	10.5
Burgh				
Coldstream ^b	20.7	34.6	29.5	15.4
Duns ^b	22.3	34.5	28.4	14.2
Eyemouth ^b	24.2	35.0	27.0	13.8
Lauder ^b	22.1	31.8	26.8	19.2
Hawick ^a	21.8	36.0	27.7	14.5
Jedburgh ^a	24.9	36.7	25.8	12.6
Kelso ^b	22.6	34.7	26.3	16.4
Melrose ^a	18.5	31.9	28.9	20.7
Galashiels ^a	22.0	35.2	27.9	14.9
Selkirk ^a	22.0	33.9	27.9	16.2
Innerleithen ^a	21.9	35.8	25.3	17.0
Peebles ^a	19.9	32.2	29.5	18.4
Burghs ^b				
(Central Borders)	21.8	35.0	27.7	15.5
Landward ^b				
(Central Borders)	24.4	36.1	26.1	13.4

Sources: ^aScottish Development Department, Edinburgh, The Central Borders: a plan for expansion. H.M.S.O., 1968, Vol. 2, p. 83.

^bGeneral Register Office, Edinburgh, Census of Scotland 1961. Vol. 3, Age, Marital and General Tables. H.M.S.O., 1965, pp. 89, 94, 96.

industry, has long been favoured by retired people and its age structure is consistent with this historical difference. In

Melrose percentages for the under 15 and 15 to 44 year old groups fall 3.3% and 3.2% below the Central Borders burghal averages while for the two older divisions its percentages are 1.6 and 5.8 higher than the norms. Hawick, Jedburgh and Galashiels show evidence of the concentration of workers in their higher figures for the working age groups and their lower ones for the 65 and overs. Peebles, which like Melrose is popular among the retired, scores below average for residents under 45 and above for those over this age. Lauder, dependent in large part on the highway traffic it services and lacking industry, has a similar age-distribution pattern. Yet despite these dissimilarities the age structures of the burghs show a considerable uniformity.

Proportions of the Sexes

Depopulation has been a matter of grave concern in the Borders for a long time. Since 1891 the population has fallen from a high point of 118,000 to approximately 97,300 in 1971, a drop of over 20,000 in 80 years. This decline averages about 2.2% per decade, certainly a rapid enough depopulation to justify alarm, but the 1951-61 intercensal loss was 6.3%, the highest in Scotland. Were this decline restricted to the rural areas it would cause less concern; a dramatic rural-to-urban migration is a feature common to most of the highly developed countries of the world since the mechanical phase of the Agrarian Revolution began. But in the Central Borders the urban population too has decreased, albeit shrinkage of the towns began somewhat later and proceeded more slowly. As already pointed out, the decline in the Borders has been aggravated by a combination of the lowest fertility rate in the country, a high age-related mortality rate, a low proportion

of women of child-bearing age, a low marriage rate and a high employment rate for married women. As if this were not a sufficient synthesis, migration rates have been highest among child-bearing age groups. Consequently, depopulation in these four counties has been closely related to the age-sex pyramid.

In the 1961 Census females in Scotland outnumbered males 1.086 to 1. In the Border counties there were 1.108 females to every male. Selkirk, with 1.168 females to every male and Peebles, 1.154 to one, have the second and third highest ratio of females to males in Scotland. Such statistics could have indicated a potential revival in the Borders' birth rate had they pointed to a repletion of the important child-bearing age groups. Table PXIX below and Table PXII, already considered, reveal the true state of affairs. The surplus was registered in the two older groups outside the reproductive years.

Every Census since the first in 1801 has enumerated more females than males in Scotland, despite an invariably higher male birth rate. Mortality statistics invert the natal deficit; in every age group male deaths outnumber female. Of those who emigrate, most often young people, males normally predominate. The sex ratio therefore shows a general tendency toward an increasing female imbalance upwards through the age categories. The Borders may be shown to be disadvantaged by comparison to Scotland in this respect, if this tendency in the Borders is accentuated among the age groups beyond child-bearing age. Tables PXII, PXVI, PXVII and PXVIII have all provided evidence to this effect. Table PXX focuses attention on data from Table PXIX, relative to this question.

Whereas in Scotland as a whole the surplus of females over males in the 45-64 and over 64 age groups is respectively 15 and 24 per thousand persons of both sexes in the age group, the comparative figures for each of the Central Borders Counties is generally more than 50% higher.

Table PXX

Number of females in excess of males per 1,000
total population of both sexes

Area	Total Population	Number of females in excess of males per 1,000 total population of both sexes					
		0-4	5-14	15-24	25-44	45-64	65 and over
Scotland	5,179,344	-2	- 4	+3	+ 6	+15	+24
Berwick	22,437	-1	- 6	-5	+ 5	+15	+22
Peebles	14,156	+3	-13	+4	+ 5	+20	+42
Roxburgh	43,183	-2	- 6	-3	+ 5	+23	+37
Selkirk	21,052	-7	0.0	+8	+15	+23	+39

For Scotland as a whole the sex ratio dropped only slightly from 1,094 females per 1,000 males in 1951 to 1,086 females per 1,000 males in 1961. Lower ratios in all three Central Borders Counties, two of them proportionately greater falls and one equivalent to the Scottish adjustment, are therefore encouraging evidences against the trend to increasing female disproportion. Berwick alone of the Border counties followed the trend in this decade.

The 1951-1961 intercensal changes in the number of females to males in the Borders are set out in Table PXXI and these changes are compared to those for 1961-1971. The latter decade fails to show the consistency of the 1950's. Rather, the most obvious statistic is the large reduction in the female/male ratio for Selkirk, perhaps a result of the reduction in the workforce in the textile industry.

Table PXIX

Sex-age distribution per 1,000 total population of both sexes														
Area	Total Population	Males				Females				Females per 1,000 males				
		0-4	5-14	15-24	25-44	45-64	65 and over	0-4	5-14		15-24	25-44	45-64	65 and over
Scotland	5,179,344	46	86	67	125	114	41	44	82	70	131	129	65	1,086
Burghal/Landward aggregates														
Central Clydeside Conurbation	1,802,035	50	87	69	128	110	36	48	84	73	134	125	55	1,082
Areas outside Conurbation														
Burghal areas of populations of 100,000 or more	836,729	43	80	64	121	115	41	41	76	72	131	142	75	1,158
Burghal areas with populations of 10,000 and less than 100,000	743,336	46	86	65	126	114	41	44	82	69	134	130	64	1,094
Burghal areas with populations of less than 10,000	543,264	41	82	59	116	115	50	39	79	65	127	140	85	1,156
Landward areas	1,253,950	45	90	70	127	117	47	43	85	65	127	121	62	1,015
Berwick County	22,437	38	82	59	118	129	60	37	76	54	123	144	82	1,065
Small Burghs	5,821	36	78	52	111	129	57	35	79	53	129	150	91	1,158
Coldstream	1,226	33	68	58	108	130	59	36	70	59	121	165	95	1,197
Duns	1,837	45	73	47	112	132	55	32	78	53	133	152	87	1,154
Eyemouth	2,161	34	81	51	113	128	52	37	90	50	136	142	86	1,176
Lauder	597	25	101	60	102	127	75	30	65	47	109	141	117	1,038
Districts of County	16,616	39	83	61	120	128	61	38	75	54	121	142	78	1,034

^x consists of parts of Dunbarton, Lanark and Renfrew Counties and Glasgow County of City, as defined in the Census 1961 Scotland.

Table PXIX (contd.)

Area	Total Population	Males					Females					Females per 1,000 males	
		0-4	5-14	15-24	25-44	45-64	65 and over	0-4	5-14	15-24	25-44		45-64
East	6,393	41	83	53	119	127	65	33	75	51	122	145	85
iddle	5,600	38	80	69	118	132	58	40	76	59	117	141	73
est	4,623	35	87	63	126	125	56	42	74	53	126	138	74
Peebles County	14,156	35	88	54	109	121	58	38	75	58	114	151	100
	7,847	31	74	54	107	120	63	35	64	55	117	163	117
Small Burghs	2,299	34	72	58	126	111	66	45	68	55	119	141	104
Inverleithen	5,548	30	75	52	99	123	62	31	62	55	117	171	122
Peebles	6,309	39	105	54	111	122	52	42	89	61	110	137	78
Districts of County	1,148	39	92	63	112	143	48	33	86	58	111	145	70
Broughton	1,545	35	89	55	107	132	58	42	66	50	112	146	107
Inverleithen	2,287	40	134	52	100	104	49	38	116	66	105	126	70
Linton	1,329	41	84	47	135	125	53	56	73	65	116	138	67
Peebles	43,183	39	79	62	117	123	54	37	73	59	122	146	91
Roxburgh County	25,952	38	75	57	115	121	52	35	72	60	124	153	99
Small Burghs	16,206	39	74	59	115	121	45	36	70	62	124	156	99
Hawick	3,645	41	87	63	120	121	54	36	84	63	122	137	71
Jedburgh	3,968	40	79	48	116	114	62	36	71	56	127	149	102
Kelso	2,133	29	56	49	103	131	73	30	70	48	119	158	134
Melrose	17,231	40	84	69	121	125	57	38	75	56	120	135	79
Districts of County	4,272	45	81	67	123	119	56	44	70	61	122	135	77
Hawick	3,500	46	89	62	124	131	53	38	80	57	120	125	75
Jedburgh	4,171	36	81	71	117	129	56	39	81	53	116	143	77
Kelso	5,288	36	87	73	119	124	60	34	71	54	120	137	84
Melrose													

Table PXIX (contd.)

Area	Total Population	Males				Females				45-64 and over	65 and over	Females per 1,000 males
		0-4	5-14	15-24	25-44	45-64	65 and over	0-4	5-14			
Selkirk County	21,052	40	73	55	111	127	55	33	73	63	126	150
Small Burghs	18,007	40	74	53	111	126	54	32	74	59	125	152
Galashiels	12,373	41	74	54	112	127	54	34	72	58	128	152
Selkirk	5,634	37	76	50	109	126	56	28	79	59	120	153
Districts of County	3,045	39	69	64	116	130	57	41	66	87	128	135
North	1,931	34	65	60	104	129	58	37	66	108	126	138
South	1,114	47	75	73	136	132	56	48	65	50	131	129
												58

Source: General Registry Office, Edinburgh.
Census 1961 Scotland. Vol. 3, Age, Marital and
General Tables. H.M.S.O., 1965, pp. 86, 94, 96.

Table PXXI

Borders Population: Females per 1,000 males 1951, 1961 1971

	1951	Net Intercensal Change	1961	Net Intercensal Change	1971
Scotland	1,094	- 8	1,086	- 7	1,079
Berwick	1,058	+ 7	1,065	+ 6	1,071
Peebles	1,162	- 8	1,154	--	1,154
Roxburgh	1,129	-15	1,114	+ 1	1,115
Selkirk	1,185	-17	1,168	-55	1,113

Sources: General Register Office, Edinburgh. Census 1961 Scotland. Vol. 3, Age, Marital Condition and General Tables. H.M.S.O., 1965, p. XXV. and Census 1971 Scotland. Population Tables. p. 4.

One explanation frequently put forward for the female-male imbalance in the Borders is that local industry provides employment for young women but offers little to young men, who, as a consequence, emigrate in search of employment. Of twenty-nine registration districts, burghs and divisions with populations exceeding 600 persons, enumerated in the 1961 census, twenty-five had more females than males and only four counted an excess of males. Of course, the larger the town, the greater the reliance on manufacturing; the smaller the village, the greater is the dependence on agriculture. Thus it is not surprising to find that where population concentrations exceed 1,000, eighteen have larger female proportions and only two list more males, but in districts or divisions of districts smaller than 600 persons males predominate in 33 as against 14 with more females and two with equal distributions and in areas of 300 or fewer, male surpluses are recorded in 22 as against only 3 for female surpluses and 2 even distributions. The landward districts are holding the men better than urban settings. The towns are keeping more of the women.

Outward migration of boys plus inward migration of the retired with the concomitant increasing margin of women through greater longevity, contribute to an increasingly unfavourable age structure, one with more and more economically non-productive, dependent old people and fewer vigorous, productive young people. The results of an origin-destination questionnaire survey reported in "The Central Borders: a plan for expansion", provide striking corroboration of the extent of this trend by 1967. Of those journeying to work 59% were male and 41% female, a very high female proportion. More importantly, however, 50% of the workers were between the ages of 40 and 65 and of these three-fifths were 50 to 65 years of age. This survey also attested to the higher percentage of female workers under 20 and the high proportion of women 20-65 in this region who work. These results are presented diagrammatically in Figures PV and PVI below.

The rise and fall of the Central Borders population from 1801 to 1961 is traced in Figure PVII. The continuous total increase up to 1891 and the virtually unbroken fall since is shown by the solid line. The heavy, broken line shows that the burgh populations, helped by textile industry growth continued to increase until about 1901 when they entered the gradual decline that has continued ever since. The dotted line illustrates the initial success of the Agrarian Revolution which maintained the agricultural population and even encouraged rural immigration after 1841, (when urban-landward statistics were first compiled), until about 1871 and the last years of prosperity before the great agricultural depression, since which time the rural urban drift has continued unabated.

Figure PV

Origin and destination traffic survey - questionnaire

Age Distribution

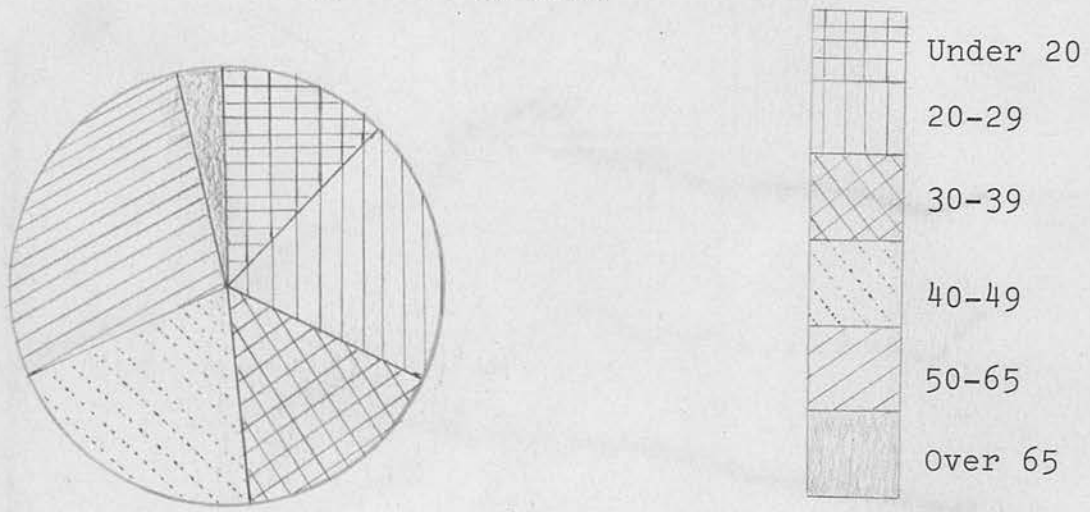
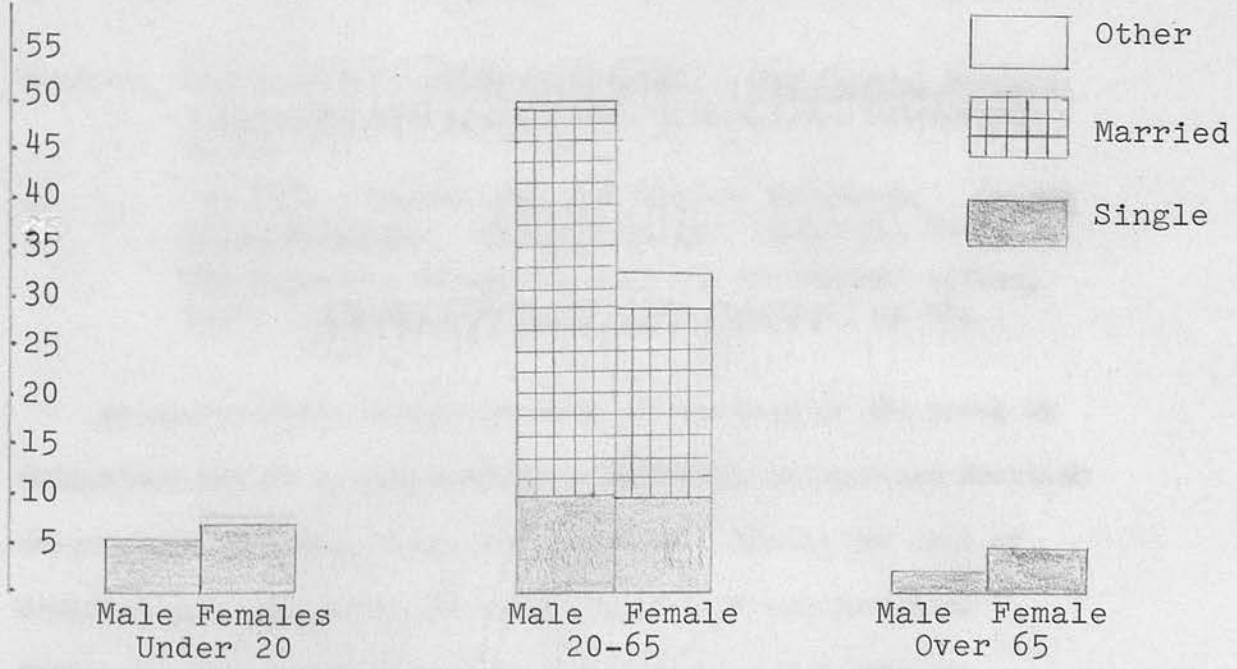


Figure PVI

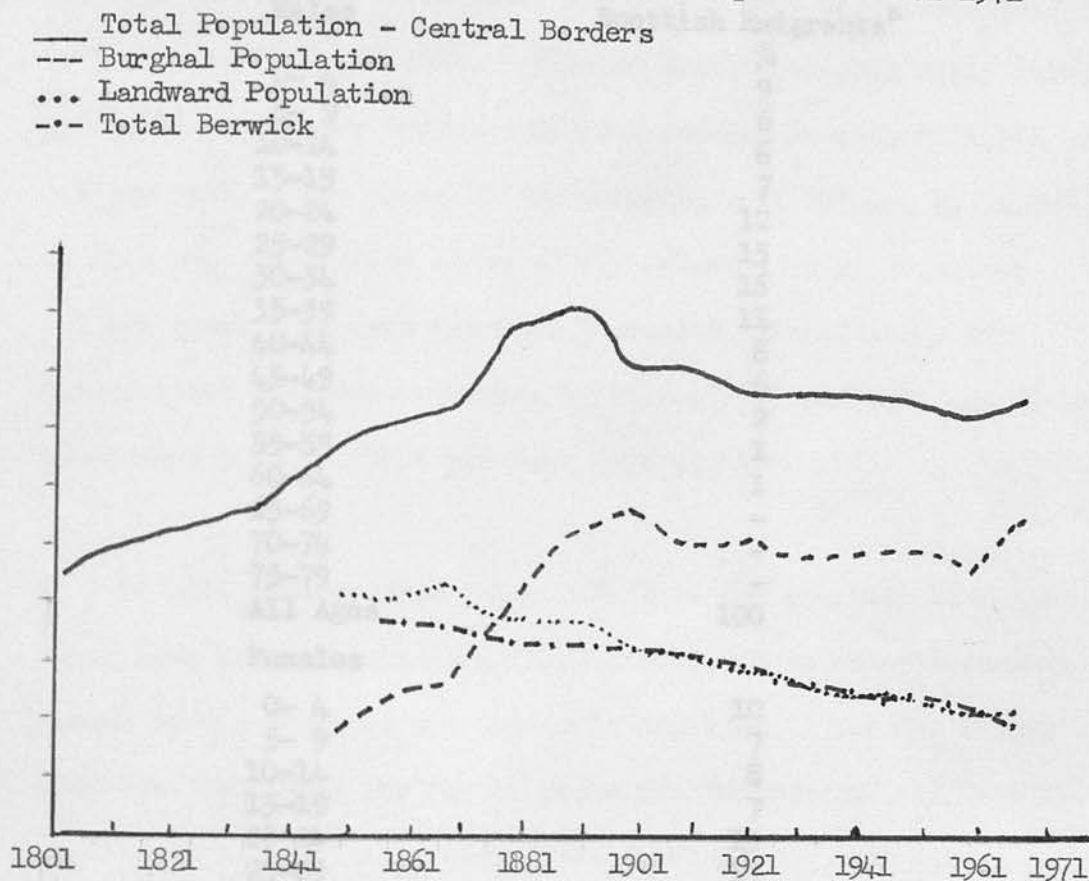
Analysis of labour force by age, sex and marital status



Source: Figures PV and PVI are from an Origin and destination traffic survey - questionnaire reported in Scottish Development Department. The Central Borders: a plan for expansion. Vol. 1, Edinburgh, H.M.S.O., 1968, p. 98.

Figure PVII

Central Borders and Berwickshire: Population 1801-1971



Sources: Scottish Development Department. The Central Borders: a plan for expansion. Vol. 2, H.M.S.O., Edinburgh, p. 63.

for 1971 - General Register Office, Edinburgh. Census 1971, Scotland. County Reports. H.M.S.O., Table 3.

for Berwick - County Planning and Development Office, Duns. A Rural Policy for Berwickshire. p. 24.

An appreciation of the severity of the loss of the young by emigration may be gauged from Table PXXII which categorizes Scottish emigrants to England, Wales and overseas. Ninety per cent of Scottish male emigrants are under 45, fathers and potential fathers. For female emigrants the statistics are similar. Eighty-nine per cent are of child-bearing age and younger. The loss to the present and future workforces is obvious.

Table PXXII

Migration population by Percentage Age Distribution

Males	Scottish Emigrants ^a
	%
0- 4	9
5- 9	6
10-14	6
15-19	7
20-24	12
25-29	15
30-34	16
35-39	11
40-44	8
45-49	6
50-54	2
55-59	1
60-64	1
65-69	-
70-74	-
75-79	-
All Ages	100
Females	
0- 4	10
5- 9	7
10-14	8
15-19	7
20-24	13
25-29	15
30-34	13
35-39	10
40-44	6
45-49	4
50-54	3
55-59	2
60-64	1
65-69	-
70-74	-
75-79	-
All Ages	100

^aEmigrants to England and Wales and overseas.

Source: Scottish Development Department, Edinburgh. The Central Borders: a plan for expansion. H.M.S.O., 1968, Vol. 2, p. 70.

One of the most striking changes recorded in the 1961 census from the situation prevailing in 1951 was the large decrease in the number of single people in Scotland and the large increase in the number who were married. During the intercensal period the number

of single males aged 15 and over went down by 55,887 or 9.7 per cent and the number of bachelor girls fell even more dramatically, by 93,945 or 14.5 per cent. Married males increased their numbers by 75,711 or 6.8 per cent and married females increased 73,314 or 6.5 per cent. The ranks of the widowers were thinned by 14,000 or 14.5 per cent, while those of the widows grew by 18,328 or 7.3 per cent. Numbers divorced increased substantially too. Divorced men were more numerous by 988 or 17.6 per cent and divorced women were 3,781 or 38.8 per cent more plentiful.¹⁰

It will be seen from Table PXXIII that the greatest increase among both married males and females occurred in the quinquennial groups in the twenties and the early thirties. But the Border Counties registered the fewest males per thousand of all Scotland's divisions for all three quinquennial periods and with one exception, (the Crofting Counties, 20-24 year old group), had the fewest females per thousand in all three groups by a wide margin. (Quinquennial statistics for the Borders are given in Table PXXIV.) When to this is added the low proportion of Border women in these age groups who are married, (as shown in Table PXIII) the statistics become even more discouraging to Border growth prospects.

¹⁰General Registry Office, Edinburgh. Census 1961 Scotland.
Vol. 3, Age, Marital Condition and General Tables, H.M.S.O.,
1965, p. XLVII.

Table PXXIII

Population: Proportions, single and married males and females in 1951 and 1961 in Scotland, expressed as percentages

	Males				Females			
	Single		Married		Single		Married	
	1951	1961	1951	1961	1951	1961	1951	1961
15-19	99.6	98.8	0.4	1.2	96.5	94.2	3.5	5.8
20-24	80.0	70.4	19.9	29.5	60.2	48.2	39.6	51.6
25-29	41.8	30.8	57.7	68.9	29.0	19.0	69.8	80.3
30-34	24.0	18.9	74.9	80.6	19.0	14.4	78.4	84.2
35-44	15.8	14.3	82.3	84.4	17.9	13.4	77.9	82.8
45-54	13.0	12.2	83.3	84.8	20.3	15.4	69.7	75.2
55-64	11.8	12.0	79.2	81.0	20.9	19.7	55.8	58.4
65 and over	12.5	11.7	58.3	62.4	21.8	22.1	30.6	29.2
15 and over	32.2	29.0	62.1	66.1	31.6	27.0	55.6	59.2

Source: Derived from -
 General Registry Office, Edinburgh. Census 1961
Scotland. Vol. 3, Age, Marital and General Tables.
 H.M.S.O., 1965, p. 74.

Population in the Borders in the 1970's

Figure PVIII

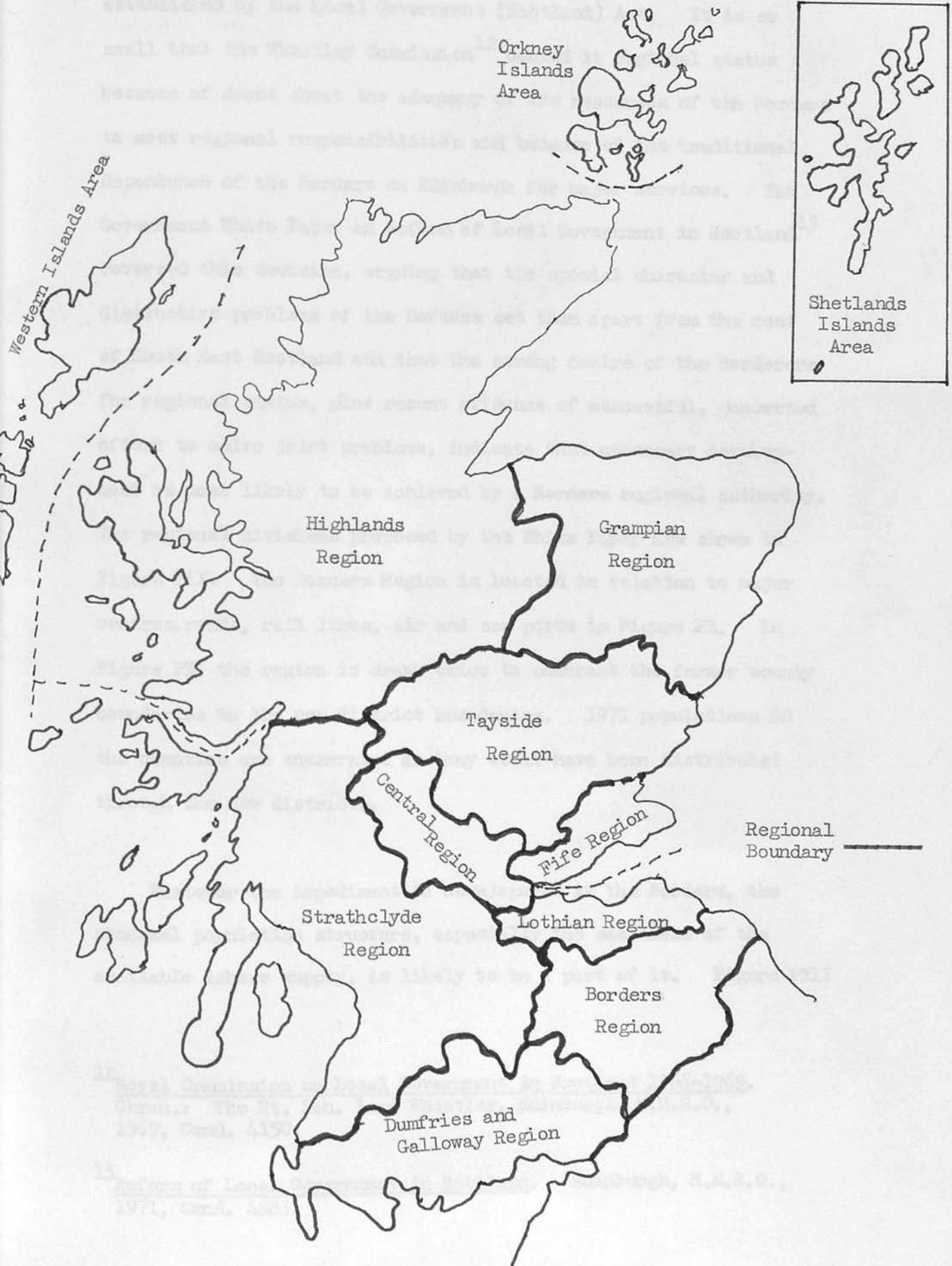
The Borders Region: the U.K. setting



The population of Scotland in 1971 was 5,228,963¹¹. That of the Borders Region was 101,733, less than 2% of the Scottish Figure.

¹¹Census 1971, Scotland.

The Scottish Regional Authorities



Source: Official Map of Administrative Areas, Edinburgh,
1 April, 1976.

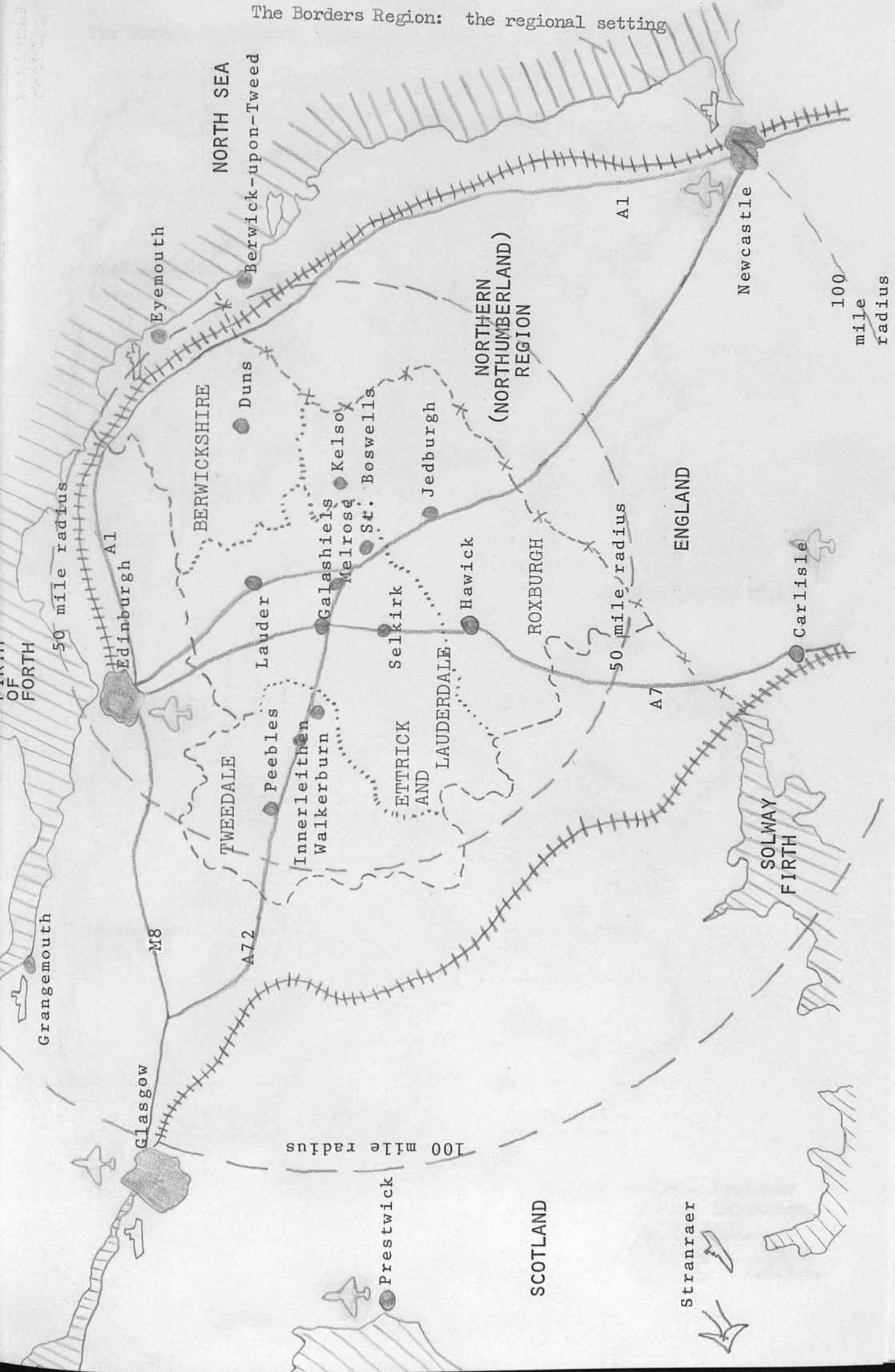
The Borders Region is the smallest of the top tier authorities established by the Local Government (Scotland) Act. It is so small that the Wheatley Commission¹² denied it regional status because of doubt about the adequacy of the resources of the Borders to meet regional responsibilities and because of the traditional dependence of the Borders on Edinburgh for major services. The Government White Paper on Reform of Local Government in Scotland¹³ reversed this decision, arguing that the special character and distinctive problems of the Borders set them apart from the rest of South East Scotland and that the strong desire of the Borderers for regional status, plus recent evidence of successful, concerted effort to solve joint problems, indicate that necessary development is most likely to be achieved by a Borders regional authority. The regional divisions proposed by the White Paper are shown in Figure FIX. The Borders Region is located in relation to major centres, roads, rail lines, air and sea ports in Figure PX. In Figure PXI the region is drawn twice to contrast the former county boundaries to the new district boundaries. 1971 populations in the counties are enumerated as they would have been distributed through the new districts.

Whatever the impediment to development in the Borders, the abnormal population structure, especially the smallness of the available labour supply, is likely to be a part of it. Figure PXII

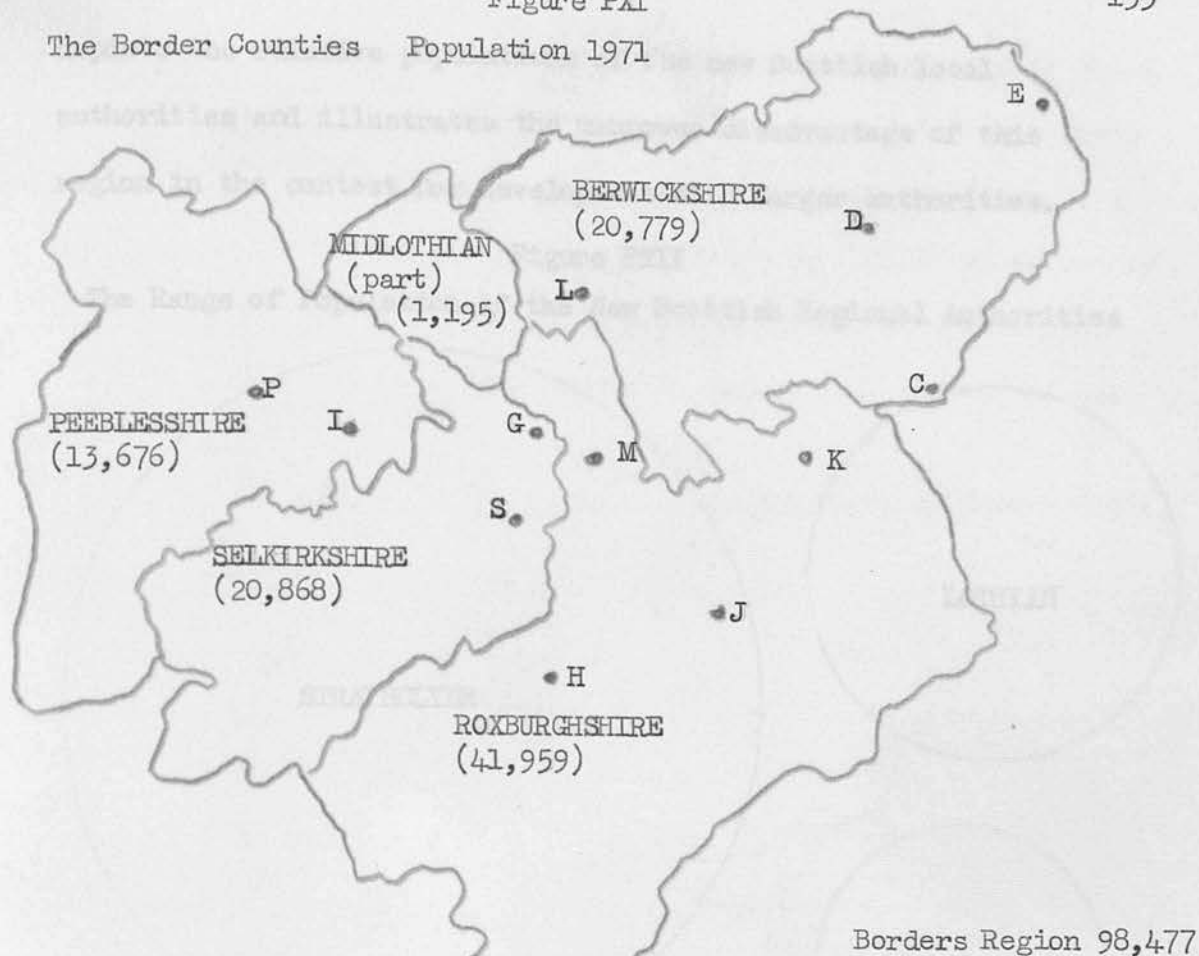
¹² Royal Commission on Local Government in Scotland 1966-1969.
Chrmn.: The Rt. Hon. Lord Wheatley, Edinburgh, H.M.S.O.,
1969, Cmnd. 4150.

¹³ Reform of Local Government in Scotland. Edinburgh, H.M.S.O.,
1971, Cmnd. 4583.

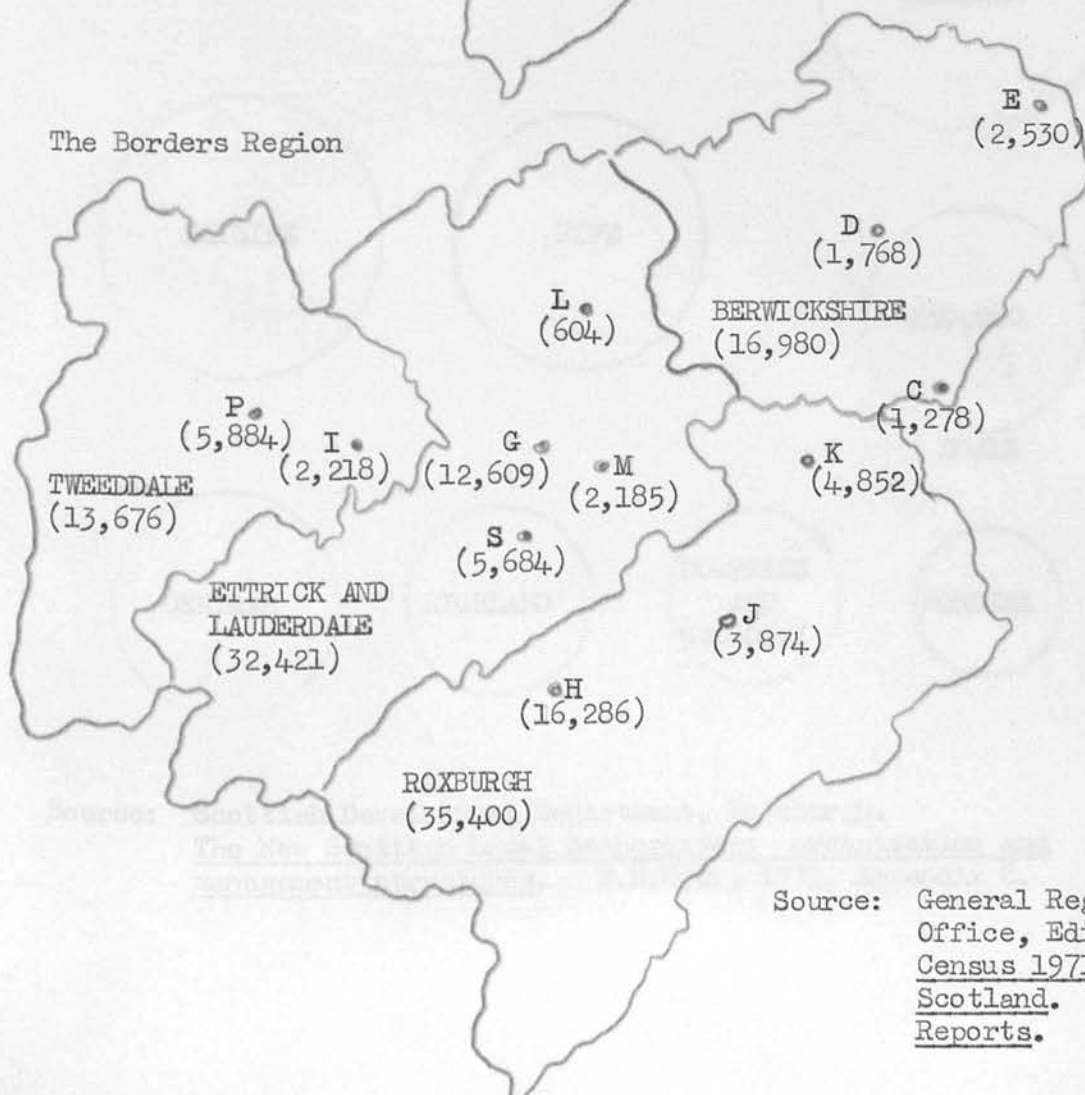
The Borders Region: the regional setting



The Border Counties Population 1971



The Borders Region

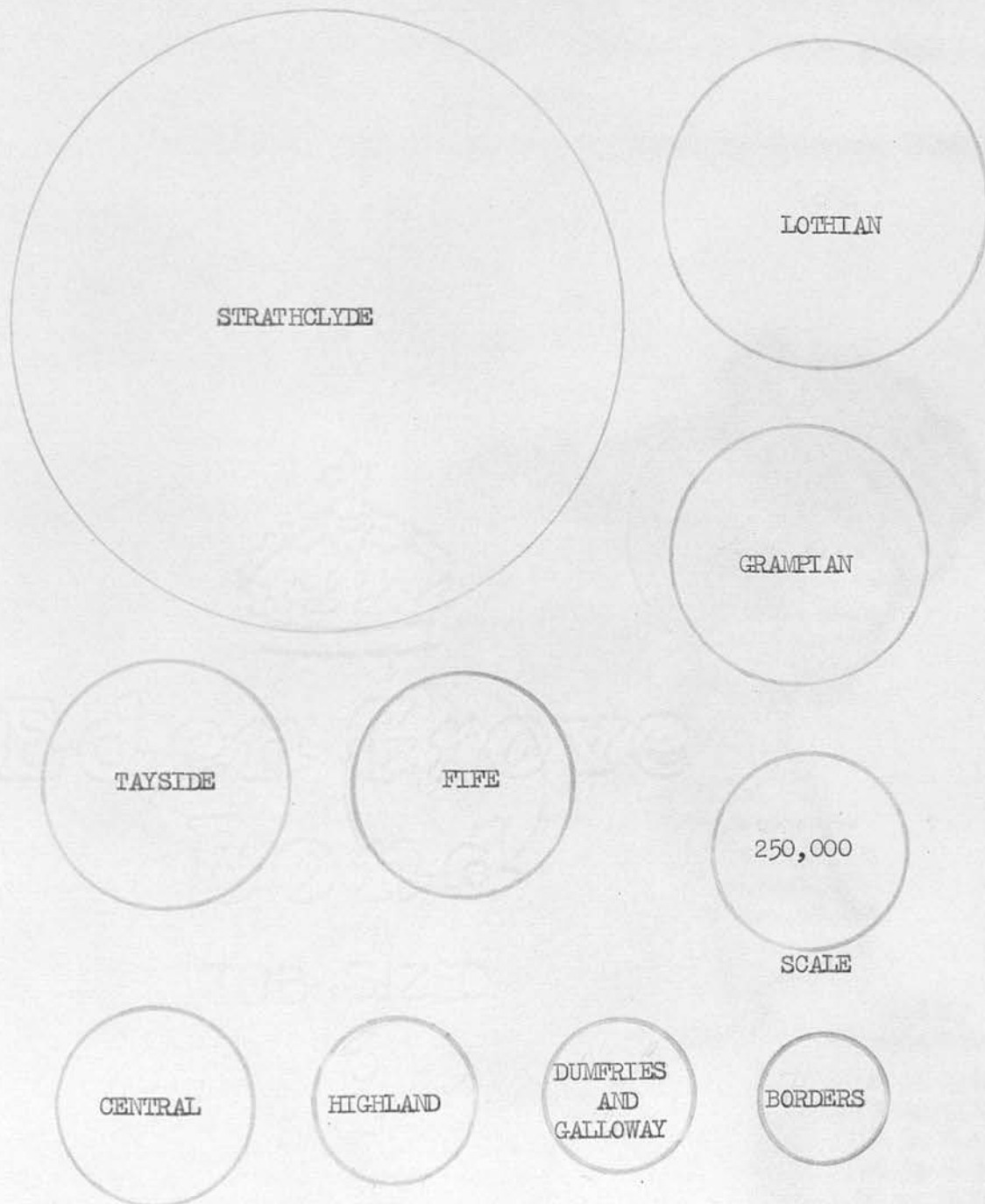


Source: General Register
Office, Edinburgh,
Census 1971,
Scotland. County
Reports. H.M.S.O.

depicts the relative populations of the new Scottish local authorities and illustrates the manpower disadvantage of this region in the contest for development with larger authorities.

Figure PXII

The Range of Population of the New Scottish Regional Authorities



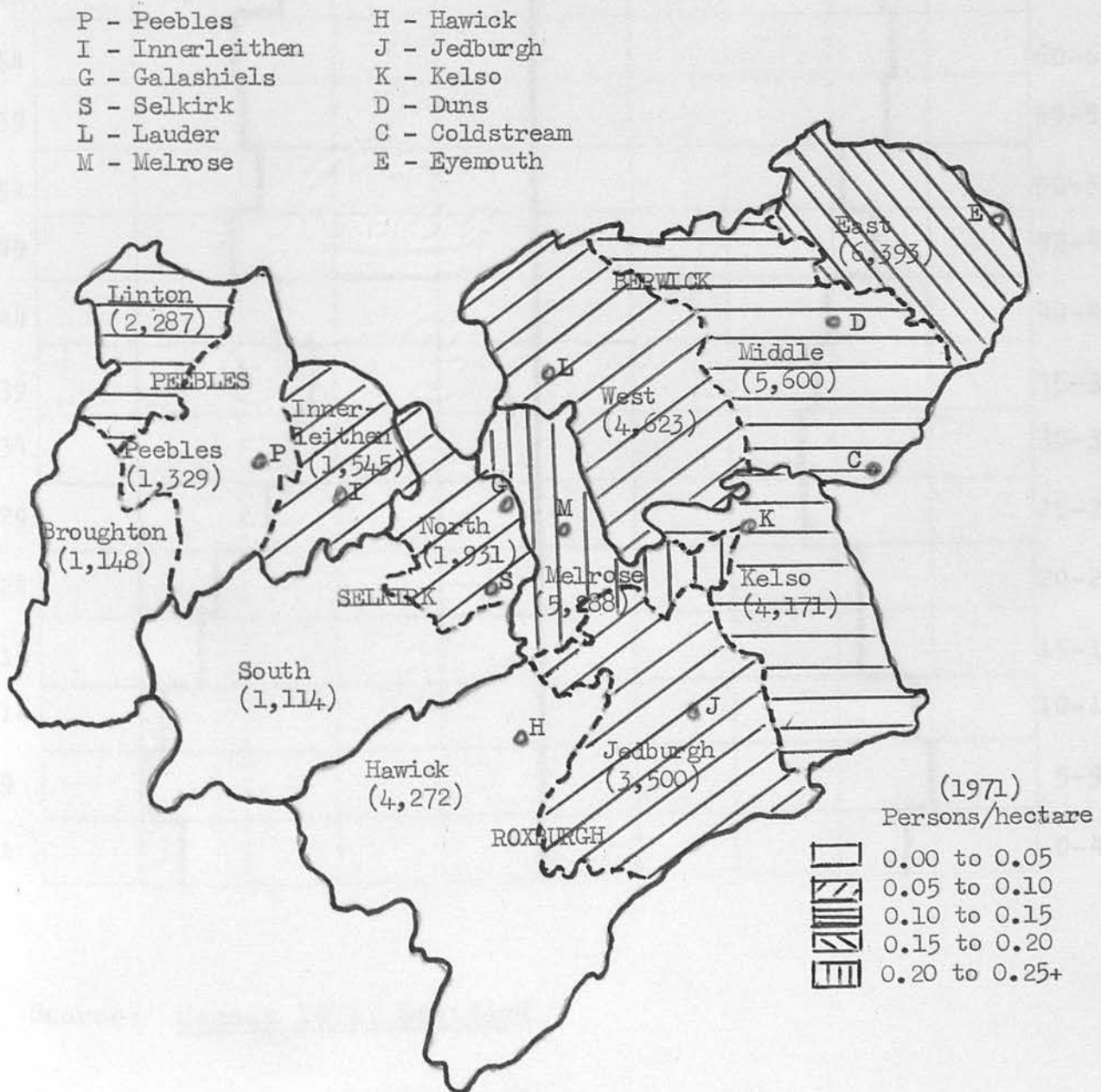
Source: Scottish Development Department, Edinburgh.
The New Scottish Local Authorities: organization and management structures. H.M.S.O., 1973, Appendix 8.

Reference has been made at many points to the effects of hills on the distribution of population in the region and to rural-urban migration which has drained away the countryside population.

Figure PXIII delineates the 1961 population on a district of county basis to focus attention on the sparse habitation of upland areas and the concentration of population in lowland and burghal areas.

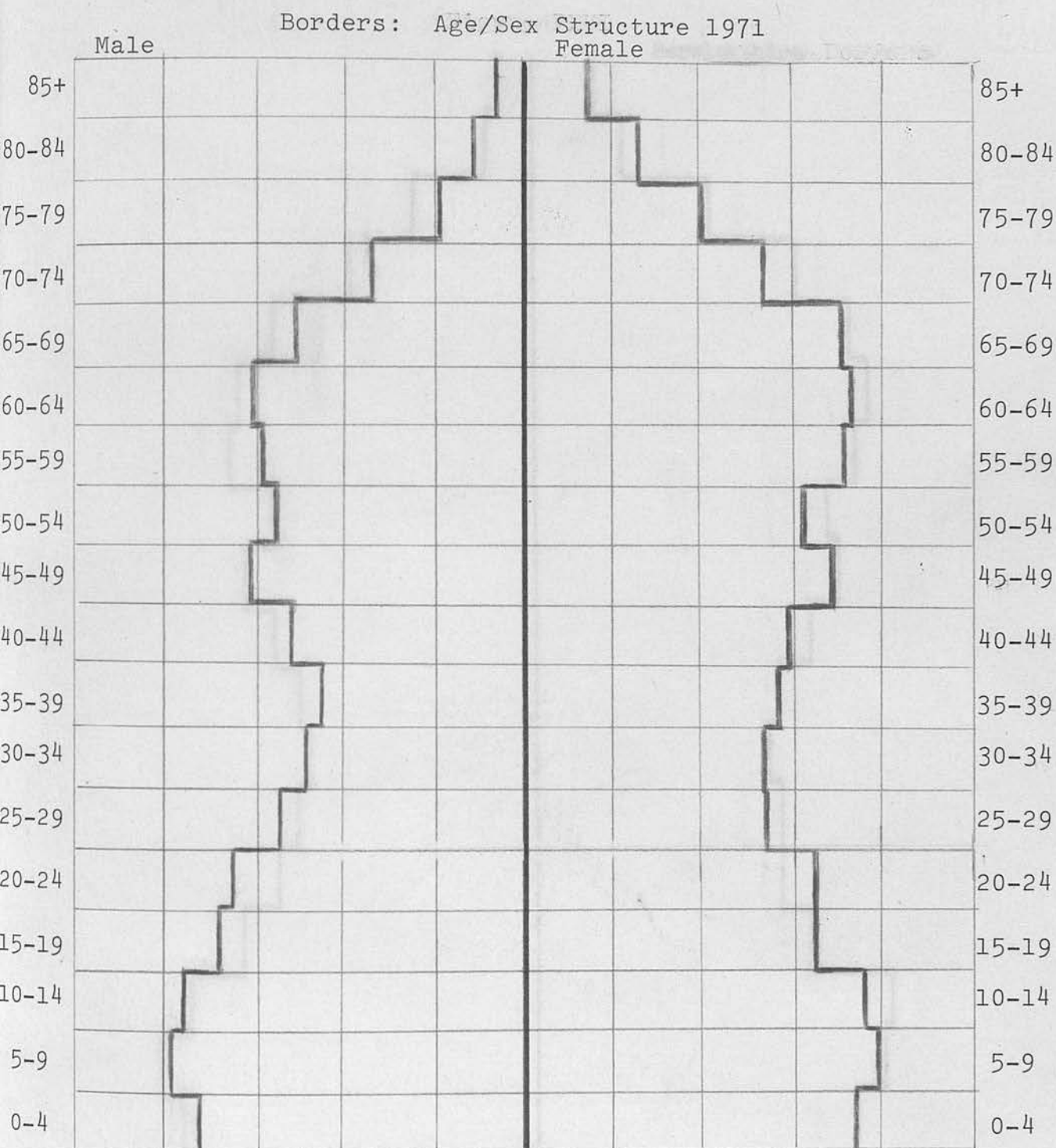
Figure PXIII

The Borders Region: Population By Districts of County (1961)



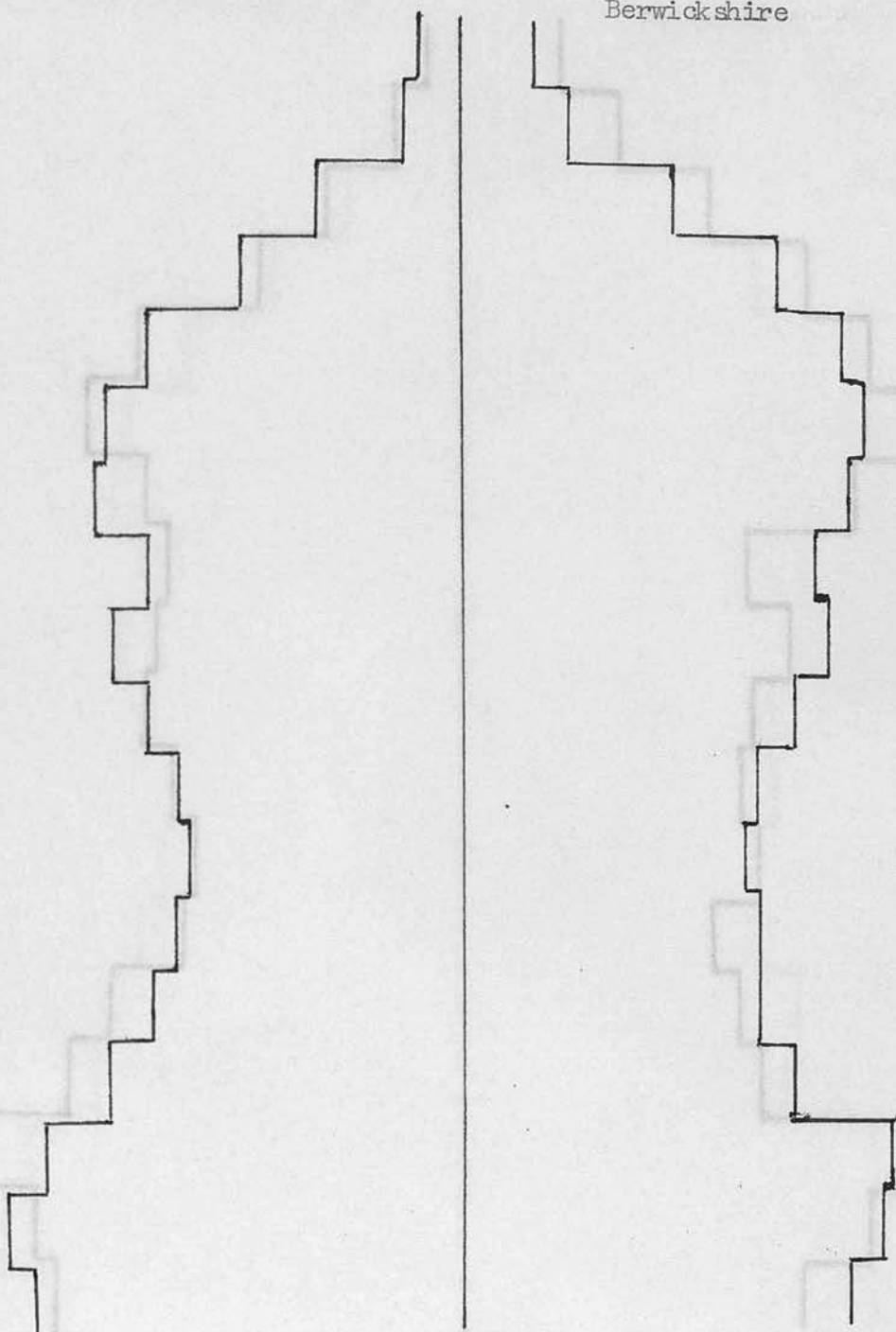
Source: General Register Office, Edinburgh. Census 1971,
Scotland. County Reports. H.M.S.O.

Figure PXV



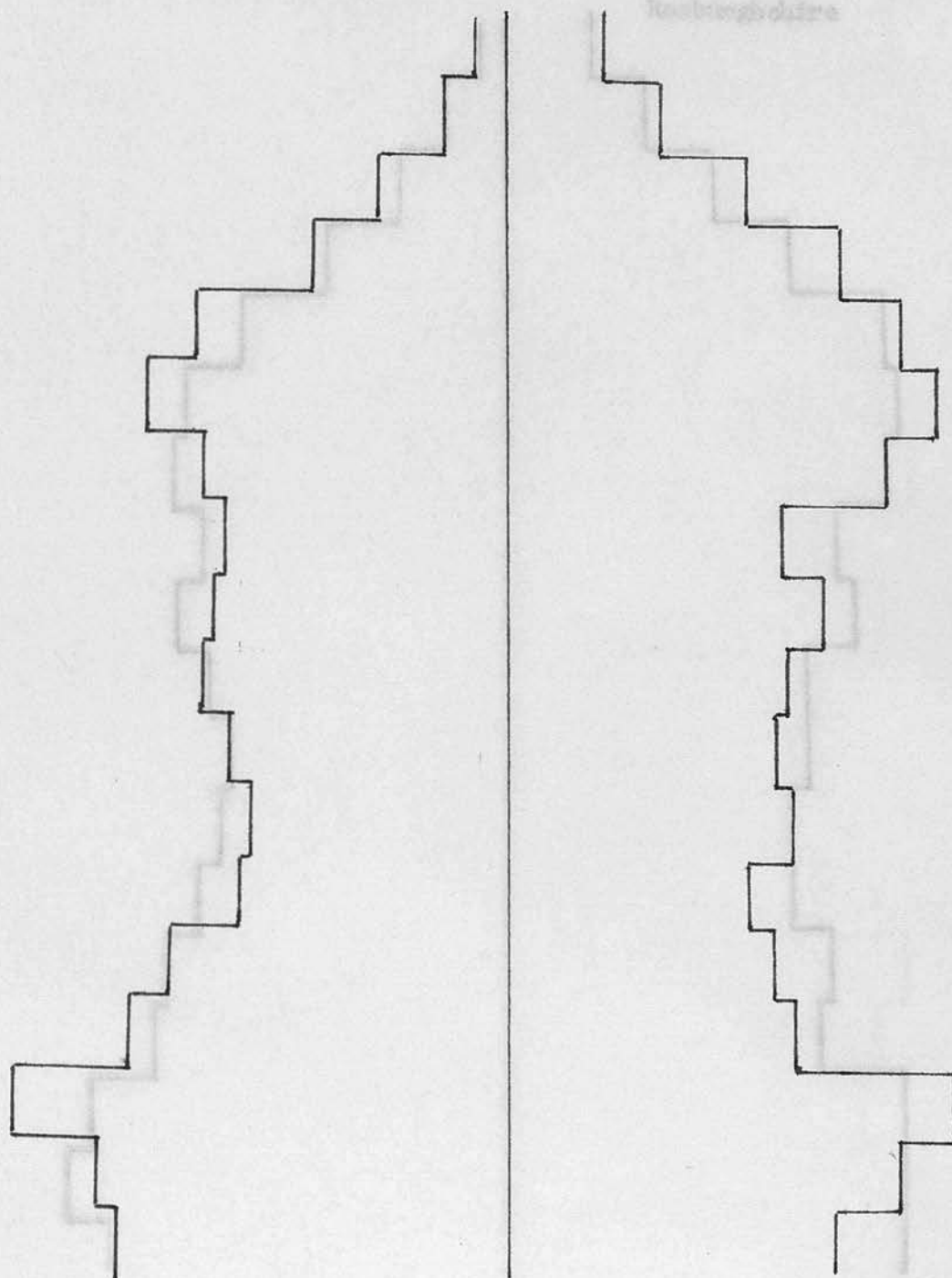
Source: Census 1971, Scotland.

Peckleskirk
Berwickshire

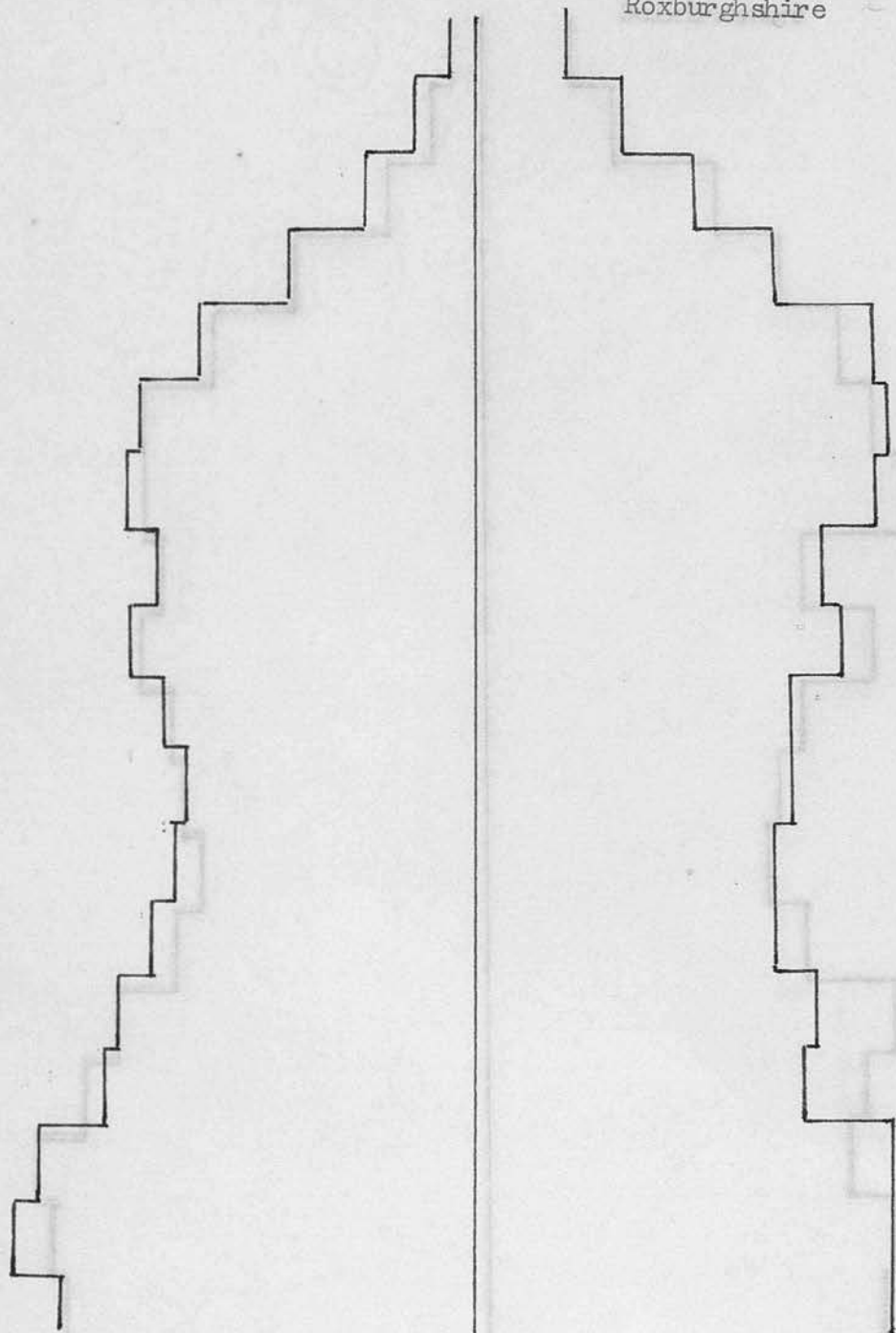


Peeblesshire

Roxburghshire



Roxburghshire



Selkirkshire

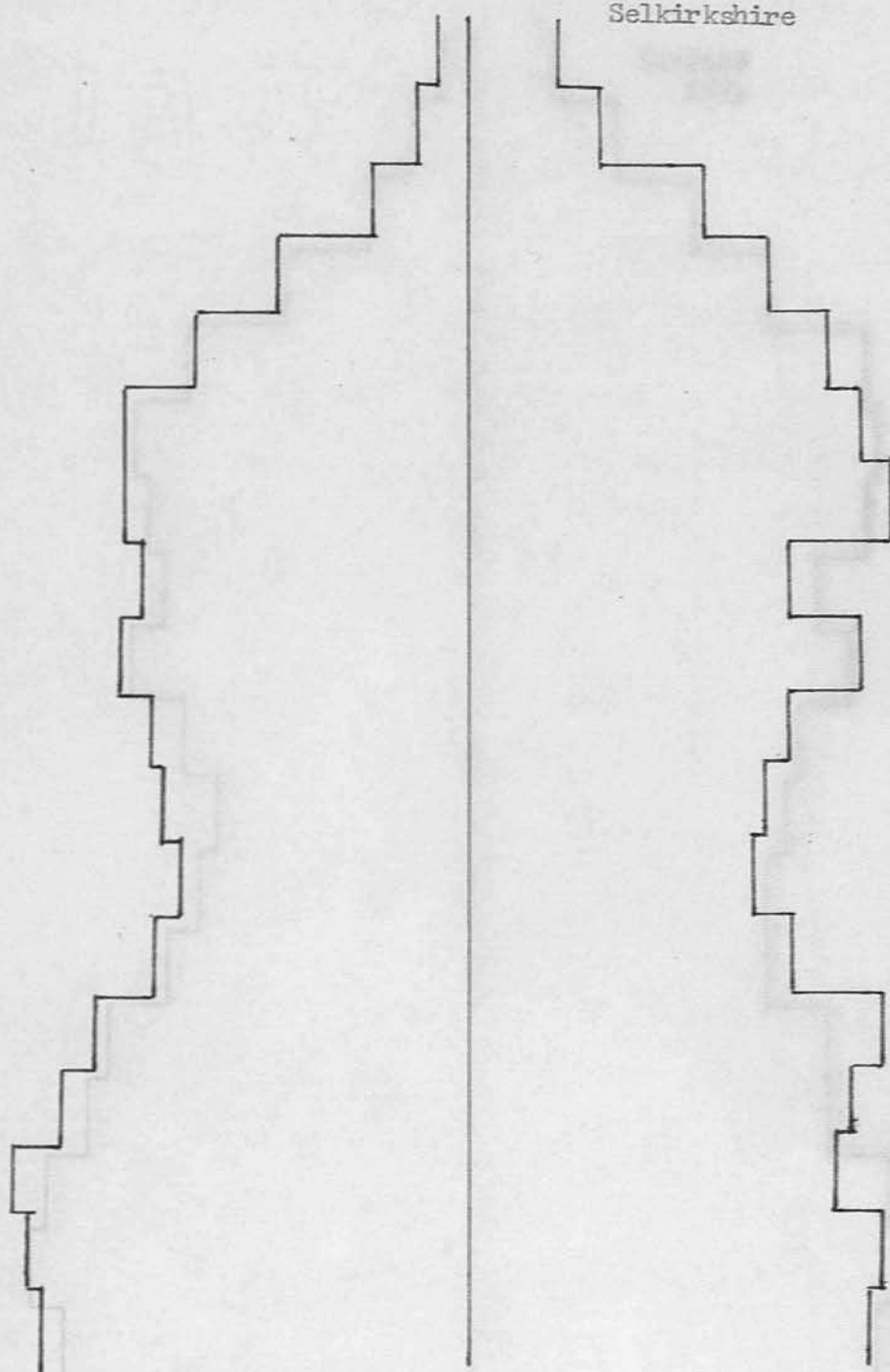


Figure PXIV

Scotland: Age/Sex Structure 1971

Male

Female

Borders
1971

85+

80-84

75-79

70-74

65-69

60-64

55-59

50-54

45-49

40-44

35-39

30-34

25-29

20-24

15-19

10-14

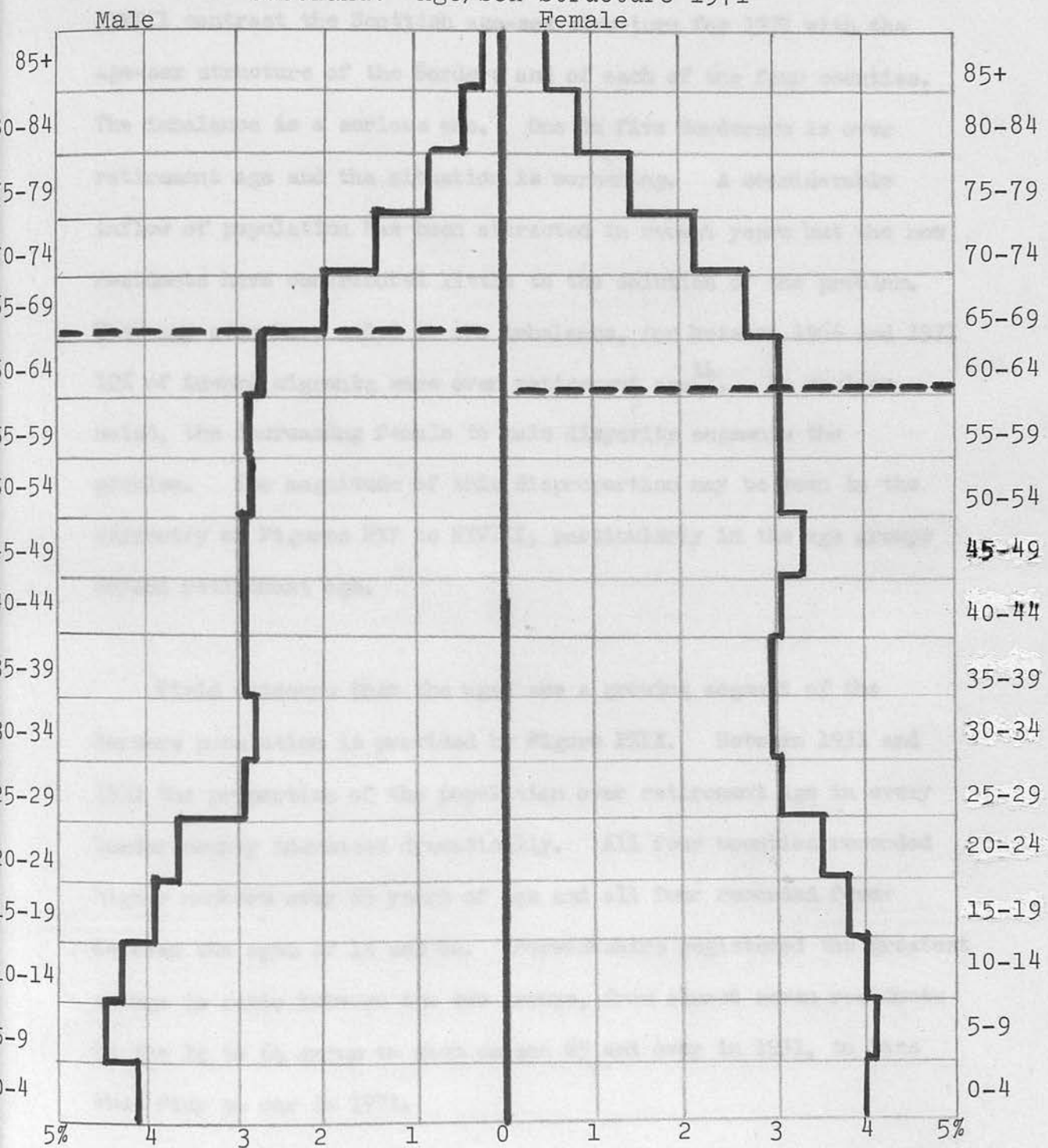
5-9

0-4

Census 1971, Scotland.

Figure PXIV

Scotland: Age/Sex Structure 1971

Source: Census 1971, Scotland.

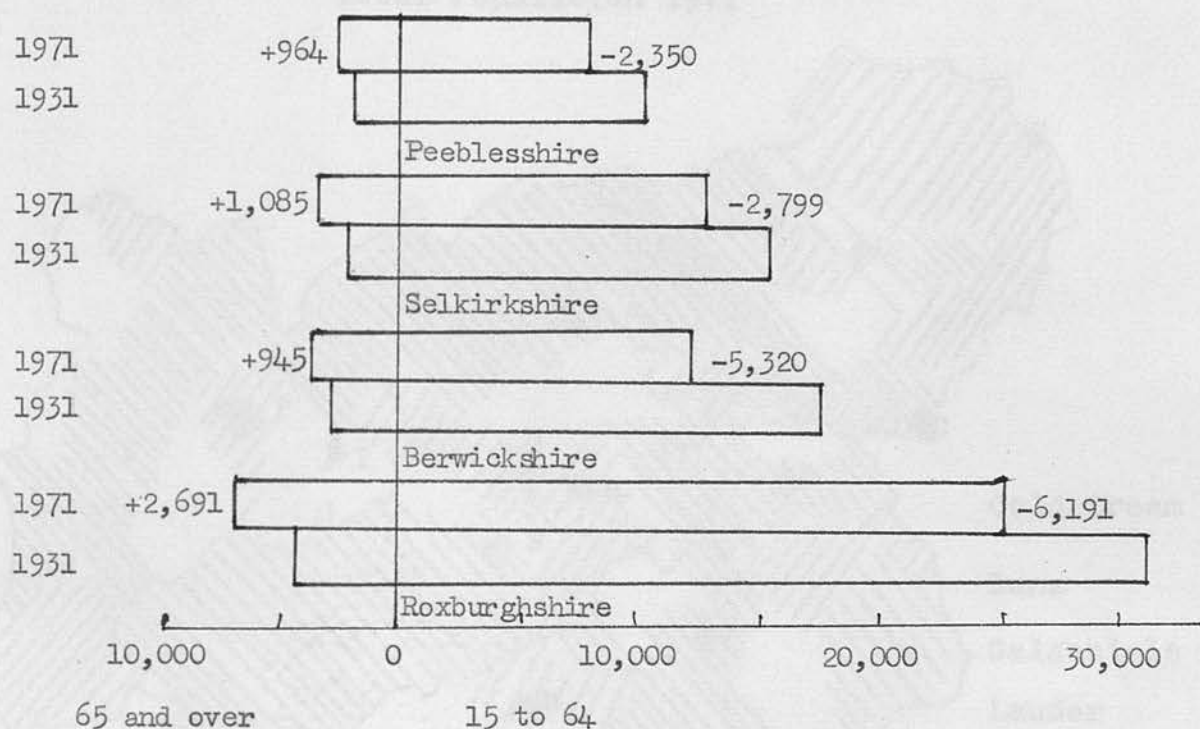
The imbalance in the Borders' age structure is a major disadvantage in the competition for new industry. Figures PXIV to PXVIII contrast the Scottish age-sex structure for 1971 with the age-sex structure of the Borders and of each of the four counties. The imbalance is a serious one. One in five Borderers is over retirement age and the situation is worsening. A considerable inflow of population has been attracted in recent years but the new residents have contributed little to the solution of the problem. They may even have added to the imbalance, for between 1966 and 1971 12% of inward migrants were over retirement age¹⁴. As earlier noted, the increasing female to male disparity augments the problem. The magnitude of this disproportion may be seen in the asymmetry of Figures PXV to PXVIII, particularly in the age groups beyond retirement age.

Vivid evidence that the aged are a growing segment of the Borders population is provided by Figure PXIX. Between 1931 and 1971 the proportion of the population over retirement age in every Border county increased dramatically. All four counties recorded higher numbers over 65 years of age and all four recorded fewer between the ages of 15 and 64. Berwickshire registered the greatest change in ratio between the two groups, from almost seven residents in the 15 to 64 group to each person 65 and over in 1931, to less than four to one in 1971.

¹⁴Borders Regional Planning Unit, op. cit., p. 4.

Figure PXX.

The Borders: The Shift in Age Structure 1931 to 1971



Source: Scottish Border Local Authorities Joint Committee, Newtown St. Boswells. The Borders Region 1975. Regional Planning Unit, Roxburgh Council Offices, March, 1975, p. 44.

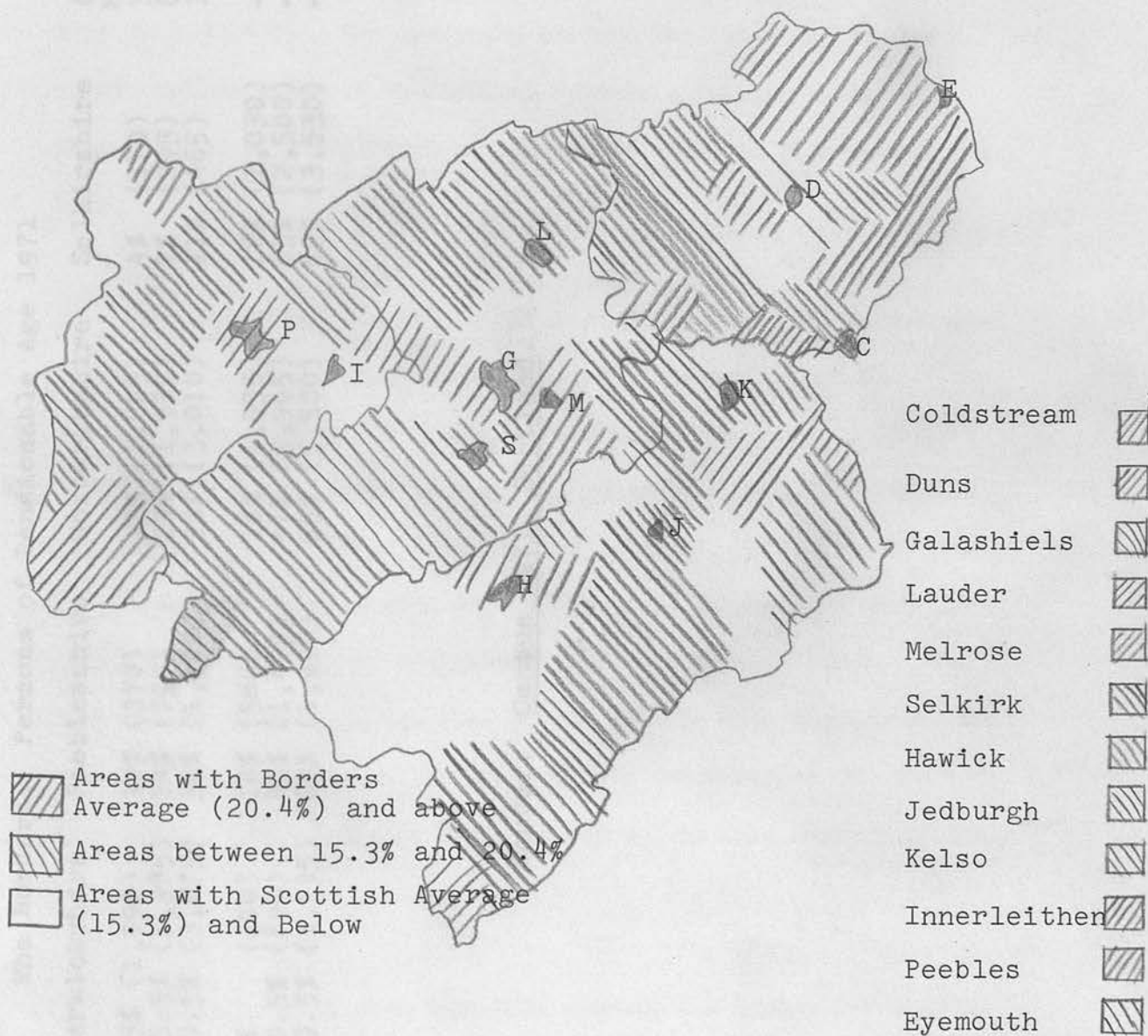
Isolation from help and services is a greater problem to the aged than to other age groups. Thus the present distribution of the elderly in the Borders imposes strains on the health and social services and older landward residents find the available transportation and delivery systems incapable of meeting their needs¹⁵.

¹⁵Gruer, Rosamund. The Needs of the Elderly in the Scottish Border Counties. Department of Social Medicine, University of Edinburgh, 1973, passim.

Figure PXXI

The Borders: the retired population

Number of Women Over 60 and Men Over 65 as a Percentage of
Total Population 1971



Source: Scottish Border Local Authorities Joint Committee, Newtown St. Boswells. The Borders Region 1975. Regional Planning Unit, Roxburgh Council Offices, March, 1975, p. 46.

According to the 1971 census 39% of Borderers of pensionable age live in landward areas, hence in parts of the region where the services they, of all groups, most require, are in short and diminishing supply. It would appear from Table PXXII that proportionately, this is most true for Berwickshire and the parishes of Heriot and Stow in Midlothian, but geography renders the isolation in the remote upland areas of the Central Borders a greater handicap. Distribution of the retired population is shown in Figures PXX and PXXI.

The population decline in the Border counties is a many-headed Hydra. A solution must not only reverse the loss, but must specifically attract the young, particularly young men. It must encourage a higher proportion of the young to marry, to reside in the Borders (rather than commute from outside), and to raise larger families. It must provide employment for a larger workforce of males than find work in businesses presently located there. It must either discourage the flow of the elderly into the Borders or work out with the Central Government some compensation for the disproportionate burden on services imposed by this segment of the population.

A solution must also take into account the demand for higher education of the most talented of the 15-24 age group and the lure for the better educated, of centres outwith the Borders where opportunities for semi-professional and professional advancement are far more numerous. These problems are considered in the chapters on education and employment.

Chapter 5. Education in the Borders

Background to Present System

The topography of the Borders has left its imprint on educational provision as it has on all other aspects of local life. The high ridges and long valleys, preventing as they did the establishment of a close network of road communications, led to the building of small autonomous schools serving small communities. Many were one-roomed, all-age country schools in which enrolments declined as the rural-urban migration proceeded. Recent years have seen an attempt to replace these isolated schools by more centrally located ones of sufficient size to permit a wider curriculum and some specialized staff, but the conversion is costly and many small units remain, as Table EI makes clear.

Running counter to the trend to the discontinuance of very small schools and the amalgamation of their pupils into larger units is the situation in hill and upland areas where the busing of children to alternative schools imposed unreasonable travelling times on young pupils. In these areas the loss of population has reduced some multi-room schools to the one or two teacher category. This effect may be seen in Table EII which lists school roll numbers in Berwick for the years 1960, 1965 and 1971.

While the drift into towns left empty desks in rural schools, it increased the pressure on existing urban provision and created pressures for new facilities. Costly reorganization was necessary to service the influx into the towns, to provide a modern expanded curriculum, to replace uneconomic rural units, to transport uprooted

Table EI

Departments by size of roll at 24th January, 1969

(a) Separate primary schools (1)

Education Authority	Size of roll													
Area	All sizes	1-24	25-49	50-99	100-199	200-299	300-399	400-499	500-599	600-799	800-999	1,000-1,199	1,200-1,599	
Berwick E.A.	29	10	9	6	2	1	1	-	-	1	1	1	1	
Roxburgh E.A.	27	11	2	4	5	-	2	1	1	1	-	-	-	
Selkirk E.A.	14	2	2	3	2	3	1	1	-	-	-	-	-	
Peebles E.A.	14	8	-	4	1	-	-	-	1	-	-	-	-	
Scotland E.A.	2,274	432	349	260	241	191	181	188	193	187	42	9	1	
G.A.	2	-	1	-	-	1	-	-	-	-	-	-	-	
Total	2,276	432	350	260	241	192	181	188	193	187	42	9	1	

(1)

Including 98 education authority and 1 grant-aided primary schools with nursery and/or special departments.

Table III (Contd.)

(b) Primary departments attached to secondary schools

Education Authority		Size of roll												
		All sizes	1-24	25-49	50-99	100-199	200-299	300-399	400-499	500-599	600-799	800-999	1,000-1,199	1,200-1,599
Area														
Berwick E.A.	2	-	-	-	-	2	-	-	-	-	-	-	-	-
Roxburgh E.A.	3	-	-	-	1	1	-	1	-	-	-	-	-	-
Selkirk E.A.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peebles E.A.	1	-	-	-	-	1	-	-	-	-	-	-	-	-
Scotland E.A.	281	4	22	40	78	58	23	23	19	14	-	-	-	-
G.A.	30	1	-	3	4	11	4	3	3	1	-	-	-	-
Total	311	5	22	43	82	69	27	26	22	15	-	-	-	-

Table EI (contd.)

(c) Separate Secondary Schools

Education Authority	Size of roll													
Area	All sizes	1-24	25-29	50-99	100-199	200-299	300-399	400-499	500-599	600-799	800-999	1,000-1,199	1,200-1,599	
Berwick E.A.	1	-	-	-	-	-	-	-	-	1	-	-	-	
Roxburgh E.A.	2	-	-	-	-	-	-	-	1	-	-	1	-	
Selkirk E.A.	2	-	-	-	-	-	1	-	-	-	1	-	-	
Peebles E.A.	1	-	-	-	-	-	-	-	-	1	-	-	-	
Scotland E.A.	296	2	1	3	5	17	22	17	33	57	57	53	29	
G.A.	2	-	1	-	-	-	-	-	-	-	1	-	-	
Total	298	2	2	3	5	17	22	17	33	57	58	53	29	

Table EI (contd.)

(d) Secondary departments with attached primary departments

		Size of roll												
Education	Authority													
Area	All sizes	1-24	25-29	50-99	100-199	200-299	300-399	400-499	500-599	600-799	800-999	1,000-1,199	1,200-1,599	
Berwick E.A.	2	-	-	-	4	-	1	-	-	-	-	-	-	
Roxburgh E.A.	3	-	1	1	-	1	-	-	-	-	-	-	-	
Selkirk E.A.	-	-	-	-	-	-	-	-	-	-	-	-	-	
Peebles E.A.	1	-	-	1	-	-	-	-	-	-	-	-	-	
Scotland E.A.	281	28	49	64	44	31	20	13	4	13	10	5	-	
G.A.	30	1	-	1	3	9	3	3	4	3	3	-	-	
Total	311	29	49	65	47	40	23	16	8	16	13	5	-	

Source: Scottish Educational Department, Edinburgh.
 Scottish Educational Statistics 1969.
 H.M.S.O., 1970, pp. 171-174.

Table EII

Average Number of Children on School Registers
Returns for years ended 31st July, 1960, 1965 and 1971

School	1960	1965	1971
Abbey St. Bathans	18.0	Closed 1961	
Auchencrow	21.2	13.0	Closed 1967
Ayton	63.8	64.8	53.6
Berwickshire High	617.7	643.1	649.6
Birgham	13.3	Closed 1960	
Bunkle	19.4	21.1	Closed 1970
Burnmouth	41.5	40.8	44.0
Channelkirk	51.4	48.0	37.3
Chirnside	222.9	227.9	162.0*
Cleekhimin	10.0	Closed 1960	
Cockburnspath	49.3	45.2	28.7
Coldingham	84.5	89.0	85.8
Coldstream	310.6	259.7	201.4*
Cranshaws	16.2	15.6	10.1
Duns Primary	337.0	317.8	393.4
Earlston	311.0	317.9	486.5
Eccles	41.4	40.4	21.1
Edrom	14.5	Closed 1963	
Eyemouth	560.5	527.8	734.1
Fogo	29.4	Closed 1963	
Foulden	43.5	38.5	31.12
Gordon	61.6	83.7	83.8
Grantshouse	48.4	55.2	22.0
Greenlaw	96.9	111.6	119.0
Hume	28.3	22.1	Closed 1970
Hutton	35.2	32.1	22.4
Ladykirk	13.4	Closed 1963	
Langton	22.8	Closed 1965	
Lauder	92.0	79.8	82.5
Legerwood	24.0	Closed 1964	
Leitholm	38.5	38.1	37.7
Longformacus	16.9	26.2	10.3
Mellerstain	15.3	Closed 1963	
Mertoun	55.4	32.8	32.8
Millburn	16.6	16.8	24.2
Nenthorn	24.8	22.9	13.8
Paxton	26.0	25.0	17.0
Polwarth	11.6	Closed 1963	
Pyatshaw	20.5	13.9	Closed 1966
Reston	70.6	59.9	53.8
St. Abbs	21.7	28.0	15.17
Swinton	56.8	58.7	60.5
Westruther	24.8	23.1	19.7
Whitsome	46.0	39.8	28.6
Totals	3745.2	3480.3	3581.99

* Junior Secondaries removed

Source: Knowles, Basil, County Planning and Development Officer,
A Rural Policy for Berwickshire. County Offices,
Southfield Lodge, Duns. p. 73.

pupils to new centralized schools. The inevitable increasing burden on local rates has subjected educational administration in the Borders to the pressures and criticism that have harassed educational authorities everywhere in recent decades.

Educational Administration

Until 1919 education was administered locally by School Boards largely concerned with the provision of elementary education. Outside of the urban centres secondary education was most often a smattering of advanced instruction added to the curriculum of the primary schools. First rate secondary education for the abler children was virtually confined to Edinburgh and the principal burghs. The Education Act of 1918 recognized that School Board areas were not sufficiently large to allow for efficient educational organization and established instead independent county Education Authorities, in effect, elected ad hoc bodies. These authorities were empowered to plan their programmes, draw up their budgets and simply requisition the required finance from the local rating authorities concerned. This freedom of action ended on implementation of the Local Government Act of 1929, by which their functions were transferred to County Councils to ensure co-ordination between educational and other local government services. Since 1929, Education Committees have had the delegated authority to administer education on behalf of the Councils. By the Consolidation Act of 1946 the Councils' educational mandate was extended at both ends by providing for the development of nursery schools and the raising of the school leaving age. The 1946 Act did much more; it put the onus on County Councils to equalize educational opportunities for all of school age according to their competencies, it provided a

charter for the handicapped and it laid the foundations for an expansion of adult education facilities for social, recreational and cultural enrichment.

Although the 1946 Act extended the concern of local government to nursery schooling and a wide range of further education courses, it did not make the provision of nursery schooling obligatory and the extent to which opportunities for further education should be provided was left to local decision. The latitude permitted in these areas has resulted in wide discrepancies between one authority and another. No nursery departments had been established by an educational authority in the Borders by January, 1969, as may be seen in Table EIII. As late as 1974 only three nursery units were in operation, at Galashiels, at Coldstream and at Innerleithen, but eleven more had been proposed and thirty-eight privately operated pre-school play groups supplemented the existing units with the approval and support of social work and educational committees.

Further education, by contrast, is further advanced. Galashiels College of Further Education offers a wide range of courses for full-time and part-time study. Henderson Technical College at Hawick specializes in textile technology but is expanding its curriculum base. Berwickshire Agricultural and Technical Centre caters to the farming population and links are maintained with Oakridge Agricultural College.

Overall responsibility for educational provision rests with the Scottish Education Department and Her Majesty's Inspectorate with the assistance of consultative and advisory bodies. The

supervisory powers of the Department are extensive. The Secretary of State has the right to set standards and to enforce them throughout the whole educational service. Indeed, minimum requirements are laid down in the School (Scotland) Code, 1956, respecting qualifications of staff, class size, school organization and the form of records to be kept. Inspectorate approval is required for schools' "schemes of work". Educational authorities must seek the approval of the Secretary of State every time they wish to borrow money, make building extensions, or plan a playing field.

Primary and Secondary Education

No sharp distinction separated primary from secondary curriculum during the early evolution of Scottish education, but with the expansion of secondary education the term "primary" generally was associated with education up to age twelve and "secondary" with education beyond that age. Nowadays "primary" encompasses nursery classes for the under-fives where these are provided.

By common practice county areas frequently agglomerated small advanced primary classes and secondary classes. "Omnibus" schools of this kind grew up in Chirnside, Coldstream, Hawick, Kelso, Galashiels, Selkirk and Peebles. Junior Secondary schools with primary departments attached to them are a somewhat similar heritage from another custom of the past, adding a "supplementary top" to a primary school. As Tables EI and EIII indicate, six secondary schools, deriving from these earlier forms were still in operation in 1969, two in Berwick, three in Roxburgh and one in Peebles. Table EIII clarifies that three of the six, two of the Roxburgh schools and the one in Peebles, provide only non-Scottish Certificate

of Education courses, suggesting "supplementary top" origins, while the other three offer both S.C.E. and non-S.C.E. courses as is in keeping with an "omnibus" past. Both the Junior Secondary and the remnants of their omnibus analogues should disappear in the approaching comprehensive era when just nine comprehensive secondary schools located at Duns, Eyemouth, Earlston, Galashiels, Selkirk, Hawick, Peebles, Jedburgh, and Kelso will serve the whole region.

Until recently a number of independent schools were located in the Central Borders but only two now remain, St. Mary's (part residential), at Melrose and the Gala Froebel School at Galashiels. Some children attend private schools outside the area, mainly in Edinburgh and at Glenalmond, but the number of parents seeking to educate their children outwith the public system is small.

Educationally sub-normal children attend special classes attached to primary departments as at Burnfoot, Hawick, Kelso, Burgh Galashiels and St. Ronan's, Innerleithen or at the occupational centres at Old Gala House, Galashiels or Hawick. Physically handicapped children from Midlothian and Lanark as well as the Central Borders are cared for in a residential institution at Castlecraig, Blyth Bridge. There are also two private special schools in Peeblesshire. One, Craigerne, Peebles, run by Dr. Barnardo's Homes is a residential school for maladjusted children. The other, Garvald Home and School, Dolphinton, West Linton, for children considered uneducable in special schools, follows Rudolph Steiner's principles.

Table EIII

Departments by type at 24th January, 1969

Education Authority Area	All department- ments	Nursery		Primary		Secondary				Special		Occu- pational centres				
		Separ- ate	Attached to	Separ- ate	With at- tached to depart- ment(s)	Providing non-S.C.E. courses only	Providing S.C.E. courses only		Providing both non-S.C.E. and S.C.E. courses	Separ- ate	Pri- mary		Second- ary			
							With at- tached depart- ment(s)	Separ- ate								
														With at- tached depart- ment(s)	Separ- ate	
Berwick	38	-	-	28	1	2	-	-	1	2	-	1	2	1		
Roxburgh E.A.	38	-	-	26	1	3	-	-	2	1	1	1	-	1		
Selkirk E.A.	18	-	-	13	1	-	-	-	-	-	1	1	-	1		
Peebles E.A.	19	-	-	14	-	1	-	-	1	-	1	-	-	1		
G.A.	1	-	-	-	-	-	-	-	-	-	1	-	-	-		
Total	20	-	-	14	-	1	-	-	1	-	2	-	-	1		
Scotland E.A.	3,500	99	61	2,176	93	281	35	162	47	13	214	113	83	37	16	63
G.A.	80	1	1	1	1	30	1	1	-	29	1	-	12	-	-	-
Total	3,580	100	62	2,177	99	311	36	163	47	42	215	113	95	37	16	63

For the purposes of this Table nursery and special classes are treated as departments

Source: Scottish Education Department, Edinburgh.

Scottish Educational Statistics 1969.

H.M.S.O., 1970, P. 170

The Scottish National Camps Association runs a school camp at Broomlee, West Linton which is kept busy with education authority and other groups from the Borders and beyond, as also are two small outdoor studies centres at Scotch Kershope, Newcastleton and Towford, Jedburgh.

Further Education

Day release courses are offered at the Further Education Colleges in Galashiels and Hawick and at the Scottish Woollen Textile College, Galashiels. The Scottish Woollen Textile College is a Scottish Central Institution empowered to grant degrees. In addition to day release students it provides seventy-five places for full-time students.

Edinburgh is a major educational centre, so many residents of the Borders travel to the city to attend classes at Napier College of Technology, Heriot-Watt University and the University of Edinburgh. The Department of Extra-Mural Studies of the University also provides adult classes at Galashiels and elsewhere in the region as requested. There are no further education centres in Peebles-shire, so students from this county travel to Edinburgh or Galashiels to classes. A concentration of further education facilities in Galashiels has made this burgh an educational centre for the region.

Education Authority Schools - Number and Size

A tabulation of all education authority and grant aided departments in the four counties is set out in Table EI. Part (a)

specifies the size and number of all separate primary schools. The high proportion of departments with fewer than twenty-five pupils that still operate in Berwick, Roxburgh and Peebles is immediately apparent. Approximately 35%, 41% and 57% of the schools in these three counties have enrolments that small. Table EIV shows the number of single-teacher schools and departments in Berwick to be 10, in Roxburgh 10, in Peebles 7 and in Selkirk 3. When the number of two, three and four-teacher schools and departments is added to the single-teacher ones, they represent a combined total of 133 of the 287 primary schools and departments in the Borders. It is clear that primary school organization in the four counties is still burdened by the administrative inefficiency of numerous small units scattered through the rural areas. An examination of Table EIV reveals that over one-quarter of primary pupils (29%) are taught in schools or departments employing fewer than five full-time teachers.³⁶

Part (b) of Table EI shows the student populations of the six primary departments which still remained attached to secondary schools in 1969. All four departments exceeded 100 pupils and five exceeded 200. They thus represented sizeable blocks of pupils still not relocated in separate primary departments.

³⁶Reference to inefficiency of small schools alludes to the difficulties and costs involved in the management of single, two and three-teacher units and the problems of provision of a comparable range of subjects, facilities and specialist services. Inferiority in the quality of the educational experience is not implied. If it were possible to measure such things as the security a child experiences in a neighbourhood school by comparison to a distant one reached by school bus, the warmth of the teacher/pupil or pupil/pupil relationship in a relatively closed classroom group of several years duration, the comparative effectiveness of a teacher in this kind of situation vis-a-vis in a multi-teacher school in imparting ethical values, the importance to a teacher's effectiveness of the detailed understanding of a child's learning experiences over several years, and a host of other such variables, the results might well suggest that small schools provide better educative environments than large ones.

Table EIV

Classes in primary schools or departments at 24th January, 1969

All classes

(1)
Primary schools or departments with a complement of

Education Authority area	One teacher		Two teachers		Three or four teachers		Five or more teachers		Backward or retarded (2)
	No.	(2) Average Class Size	No.	(2) Average Class size	No.	(2) Average Class size	PI-PVII No.	(2) Average Class size	
Berwick E.A.	10	18.7	18	16.6	24	22.9	45	27.3	-
Roxburgh E.A.	10	17.2	11	20.2	20	28.5	114	30.7	1
Selkirk E.A.	3	20.3	6	22.8	7	30.4	54	31.6	-
Peebles E.A.	7	17.1	4	17.5	13	26.2	22	36.5	-
Scotland E.A.	426	15.2	833	18.2	1,259	24.5	16,145	34.7	31
G.A.	1	18.0	4	25.3	7	25.6	287	29.5	-
Total	427	15.2	837	18.2	1,266	24.5	16,432	34.6	31
									17.6

(1)

The complement of primary schools or departments refers to full-time teachers only.

(2)

Average class size as registered

Table EIV (cont.)

Classes in secondary schools or departments at 24th January, 1969

All classes

Secondary schools or departments

Education Authority area	SI		SII		SIII		SIV		SV		SVI	
	No.	(1) Average class size	No.	(1) Average Class size	No.	(1) Average Class size	No.	(1) Average Class Size	No.	(1) Average Class Size	No.	(1) Average Class size
Berwick E.A.	15	21.6	15	19.2	23	13.6	12	16.1	10	8.2	2	3.0
Roxburgh E.A.	31	19.2	23	24.3	22	20.9	13	16.4	10	9.3	3	13.3
Selkirk E.A.	13	25.8	17	19.4	20	14.3	7	22.3	14	7.4	9	7.2
Peebles E.A.	9	21.6	8	22.5	8	21.4	4	22.3	4	15.3	4	3.8
Scotland E.A.	3,459	24.4	3,375	23.1	3,779	18.6	2,045	16.2	1,289	14.5	856	9.1
G.A.	102	24.5	94	25.6	112	20.9	127	18.0	141	14.7	110	8.2
Total	3,561	24.4	3,469	23.1	3,891	18.7	2,172	16.3	1,430	14.5	966	9.0

Table EIV (cont.)

Education Authority area	Primary schools or departments (1)				Secondary schools or departments (2)					
	with a complement of									
	One teacher	Two teachers	Three or four teachers	Five or more teachers PI-PVII Backward or retarded	SI	SII	SIII	SIV	SV	SVI
Berwick E.A.	187	298	550	1,229	324	288	312	193	82	6
Roxburgh E.A.	172	222	570	3,497	595	558	459	213	93	40
Selkirk E.A.	61	137	213	1,705	336	330	285	156	103	65
Peebles E.A.	120	70	341	804	194	180	171	89	61	15
Scotland E.A.	6,490	15,168	30,834	560,844	84,315	77,802	70,270	33,040	18,690	8,654
G.A.	18	101	179	8,466	2,494	2,408	2,344	2,292	2,068	899
Total	6,508	15,269	31,013	569,310	86,809	80,210	72,614	35,332	20,758	8,654

Source: Scottish Education Department, Edinburgh.
 Scottish Educational Statistics 1969.
 H.M.S.O., 1970, pp. 178-180.

Depopulation of rural schools is suggested by the low average class sizes of one and two-teacher primary schools and departments in Table EIV. An interesting comparison revealed by this table is that relatively smaller pupil-teacher economies are realized by Border authorities in schools employing five or more full-time teachers than are realized in comparable schools throughout Scotland although Borders schools employing one to four teachers have larger classes on average than small schools in Scotland generally. Table EIV reveals also the importance of small schools in the primary education system of Berwickshire and Peeblesshire where 46% and 40% of primary pupils attend at schools or departments with four or fewer teachers. By comparison 22% in Roxburgh, 19% in Selkirk and 8½% in Scotland attend such schools.

The dramatic reduction in numbers of pupils remaining in full-time schooling beyond the compulsory leaving age is evident in Table EIV. Table EV emphasizes this loss for each of the four counties and for Scotland by treating January 1969 enrolments in the first year of secondary school as 100% and each succeeding year as a percentage of the SI figure.

Table EV

Enrolments in secondary forms as a percentage
of enrolment in secondary one

Area	SI	SII	SIII	SIV	SV	per cent SVI
Berwick	100	89	96	60	25	2
Roxburgh	100	94	77	36	16	7
Selkirk	100	98	85	46	31	19
Peebles	100	93	88	46	31	8
Borders	100	94	85	45	23	9
Scotland	100	92	84	41	24	10

This does not, of course, give an accurate picture of the loss of students, since the numbers of boys and girls in the age groups appropriate to the grades beyond secondary one are not identical to the numbers in the secondary one age group and this method does not take into account repeaters and students who have returned to schooling but are beyond the age associated with their grade. Despite the deficiencies, it does demonstrate the rapid loss in secondary four, the form in which most students reach school-leaving age, and thereafter.

Movement of students to the workforce from Central Border schools is not unrepresentative of the Scottish situation generally, as is shown by Tables EVI and EVII. Throughout the country academic talent is lost by a wholesale withdrawal of pupils who leave because they have reached the age at which it is legal for them to do so, rather than because they have reached their scholastic ceiling. Reduction of this dropout rate would automatically result in an increase in the educational resources in the area in which it occurred.

Table EVII

Total populations and proportions in schools, 1969
Border counties and Scotland

Area	Total population at June, 1969			School populations and proportions of total age-group at January 1, 1969		Total pupils and proportion of total populations
	All ages	School Ages	Ages	5-14	15-17	
Borders	96,730	14,000	3,700	14,229	1,344	15,640
				100.0%	36.3%	16.2%
Scotland	5,197,700	898,000	234,000	860,755	77,292	951,195
				95.9%	33.0%	18.3%

Table EVI

Total populations and numbers in school - 1969

Education authority area	Total Populations at June, 1969		School populations - ages at 1st January, 1969										All ages			Pupils in					Total Pupils
			2-4	5-11	12-14	15	16	17	18+15-18+	18+	Boys	Girls									
Counties	All School Ages 5-14	Ages 15-17									Boys	Girls	Boys and Girls	(1)							
Berwick E.A.	20,499	3,000	800	8	2,274	907	192	92	46	13	343	1,250	1,786	1,746	3,532	-	2,264	1,228	29	11	3,532
Roxburgh E.A.	42,619	6,500	1,700	5	4,416	1,666	205	146	92	13	456	2,122	3,328	3,215	6,543	-	4,475	2,020	38	10	6,543
Selkirk E.A.	20,273	2,900	800	2	2,081	981	173	113	68	15	369	1,350	1,844	1,589	3,433	-	2,116	1,296	15	6	3,433
Peebles E.A.	-	-	-	-	1,356	525	135	43	39	11	228	753	1,063	1,046	2,109	-	1,335	725	26	23	2,109
G.A.	-	-	-	-	21	2	-	-	-	-	-	2	23	-	23	-	-	-	23	-	23
Total	13,339	1,600	400	-	1,377	527	135	43	39	11	228	755	1,086	1,046	2,132	-	1,335	725	49	23	2,132
Scotland E.A.	609,482	38,598	11,959	73,893	473,701	928,661	613,883	9,128	9,528	294,321	1,801	928,661	454,960	10,429	22,534	744	8,764	307,185	10,272	1,801	951,195
G.A.	10,390	234,896	21,096	2,240	308,789	454,960	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162
Total	898,500	10,627	10,627	1,442	5,920	12,105	22,534	465,389	9,290	9,290	9,290	9,290	9,290	9,290	9,290	9,290	9,290	9,290	9,290	9,290	9,290
	5,194,700	234,100	618,612	40,781	13,401	79,813	485,806	951,195	622,647	10,272	1,801	951,195	485,806	951,195	622,647	10,272	1,801	951,195	485,806	951,195	485,806

(1) These figures are gross numbers and take no account of the fact that some pupils regularly attend on a half day basis.

Source: Scottish Education Department, Edinburgh.
Scottish Educational Statistics 1969-70, H.M.S.O., 1970, pp. 168, 169.

Table EVIII considers the pupils remaining beyond the school leaving age at education authority and grant-aided schools in the four counties and in Scotland in absolute terms and as percentages of the equivalent 13-year-old groups. The most urbanized county, Selkirk, retains a significantly higher proportion of 16-year-old boys than any of her three neighbouring counties or Scotland as a whole. Sixteen-year-old Selkirk girls also stay on in greater numbers, proportionately, than all but Berwickshire girls and 17-year-old Selkirk girls are still attending school more often than their counterparts in Scotland generally, though Roxburgh's record is better for this age-group. Only for girls 18 years old and older, when, presumably, the better students will have moved on to tertiary studies, does Selkirk fall below the Scottish average. This better record of the urbanized county, though predictable, may contain a tacit directive toward a solution to the dropout problem.

A second predictable difference appears in the number of students who remain in school beyond 15 in the grant-aided schools. Only the size of the differential contains an element of surprise. Among 16-year-olds the grant-aided schools keep three times as many of their students as do the education authority schools and among 17-year-olds retention is almost four times as great. Obviously, grant-aided school pupils learn to value education through both home and school influences. It is a method of engendering this esteem among education authority pupils which must be found, if the loss of talent at 15+ is to be stemmed.

The attraction of job opportunities in the factories of Hawick, Jedburgh, Kelso and neighbouring Galashiels is shown by the low retention figures for Roxburgh boys and girls, especially for girls 18 and over. It is probable that full-time schooling in Roxburgh has little to offer the 18-year-old girl not heading for tertiary education that she cannot approximate through in-service training while collecting a wage.

The sizes of the losses in each county are detailed in Table EXIX. Although the mitigating influences of migration are not considered in this table, their inclusion would not greatly alter the depressing figures. In the session 1968-1969, 1,306 boys and girls left Borders secondary schools. Over half of this number withdrew on attaining school leaving age and almost one-sixth left before they reached this age. It is clear that this withdrawal marked the termination of full-time education for almost all of these young people. It is far from evident that even a majority of the leavers would not have benefited from further schooling. Early leaving of this kind must be considered wasteful of the area's human resources.

The qualifications of teachers employed full-time or wholly or mainly in education authority and grant-aided schools in the Borders and in all of Scotland at December, 1969, are summarized in Table EXX. Despite a teacher shortage, among 799 teachers employed there were no unregistered primary teachers, just five unregistered secondary teachers and one unregistered special teacher. Seven teachers were conditionally registered, three at primary level, two at secondary and two for special education. Only one teacher

Age at 1st January, 1969

All leavers

15 and under

16

17

18 and over

	On attaining school-leaving age										Others								
	Boys and Girls		Boys		Girls		Boys and Girls		Boys and Girls		Boys and Girls		Boys and Girls		Boys and Girls				
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls			
Berwick	E.A.	119	141	260	61	65	126	16	24	40	13	27	40	22	24	46	7	1	8
Roxburgh	E.A.	263	269	532	172	147	319	23	40	63	26	42	68	32	38	70	10	2	12
Selkirk	E.A.	168	157	325	64	72	136	34	32	66	26	23	49	30	28	58	14	2	16
Peebles	E.A.	103	86	189	58	32	90	12	26	38	10	6	16	18	16	34	5	6	11
Borders		653	653	1,306	355	316	671	85	122	207	75	98	173	102	106	208	36	11	47
Scotland	E.A.	36,803	35,667	72,470	21,576	20,341	41,917	4,675	5,280	9,955	3,654	4,657	8,311	5,395	4,654	10,049	1,503	735	2,238
	G.A.	1,283	968	2,251	104	72	176	47	35	82	218	299	517	700	507	1,207	214	55	269
Total		38,086	36,635	74,721	21,680	20,413	42,093	4,722	5,315	10,037	3,872	4,956	8,828	6,095	5,161	11,256	1,717	790	2,507

(1)

Excluding special schools.

Source: Scottish Education Department, Edinburgh
 Scottish Education Statistics 1969.
 H.M.S.O., p. 182.

with primary school qualification only was employed in a secondary department, but one hundred primary teachers had secondary qualifications. The level of teacher qualification thus compares favourably with the rest of Scotland.

Further Education

A disinclination of Scottish employers to take full advantage of day release and block release opportunities is a continuing frustration to government and further education administrators. Throughout Scotland upgrading the workforce as a long term policy takes second place to maximising present production.

When the four counties of cities, Aberdeen, Dundee, Edinburgh and Glasgow are excluded from consideration, there remained in 1969, 31 education authority areas in Scotland. Two of these, Moray and Nairn, and Perth and Kinross, combined a small county population with a larger one. Among the 31 authorities Roxburgh ranked 20th in population size, but 17th in further education enrolments. Selkirk, 26th by population, was 13th by further education enrolments. Berwick, 25th in population, was 26th by further education enrolment and Peebles, with no further education college, ranked 29th in population and 31st in enrolments.¹ On balance, the Borders counties may fairly claim to be ahead of the average in numbers catered to in further education classes. On the other hand, their students are almost all enrolled in non-advanced courses and less than half are day release or block

¹ Scottish Education Department, Edinburgh.
Scottish Education Statistics 1969.
 H.M.S.O., pp. 190, 191.

Table EXX Teachers employed whole-time or wholly or mainly in education authority and grant-aided schools - at December, 1969

(a) Primary schools and departments.

Education authority area	Registered Teachers										Conditionally registered teachers				Unregistered Teachers				All Teachers	
	1 Primary Qualifications					2 Secondary Qualification					Total									
	Single Married		Men &		Men	Single Married		Men &			Single Married		Men &		Single Married		Men &			
	Men	Women	Men	Women		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women			
Berwick EA, Selkirk E.A.	7	30	32	69	14	11	5	30	21	41	37	99	-	-	-	-	21	78	99	
Roxburgh E.A.	4	31	27 m	62	11	2	2	15	15	33	29	77	-	1	1	-	15	63	78	
Peebles E.A.	11	51	97	139	14	8	14	36	25	59	91	175	-	2	2	-	25	152	177	
Scotland E.A.	3	19	17	39	10	2	7	19	13	21	24	58	-	-	-	-	13	45	58	
E.A.	1,191	8,807	18,481	1,412	650	889	2,951	2,603	9,133	9,696	21,432	9	111	120	-	-	-2,612	18,940	21,552	
G.A.	26	155	80	261	18	20	3	41	44	175	83 n	302	-	-	-	-	44	258	302	
Total	1,217	8,887	18,742	1,430	670	892	2,992	2,647	9,308	9,779	21,734	9	111	120	-	-	-2,656	21,854	21,854	
	8,638																		19,198	

1. Including athose holding Primary and Further Education Qualifications or a Further Education Qualification only.

2. Including those holding Secondary and Primary and/or Further Education Qualifications.

1. Including those holding Primary and Further Education Qualifications or a Further Education Qualification only.

2. Including those holding Secondary and Primary and/or Further Education Qualifications.

(b) Secondary Schools and departments.

(b) Secondary Schools and departments.																				
Primary Qualification ¹					Secondary Qualification ²															
					59	22	9	90	59	22	9	90								
Berwick EA-	-	-	-	-	59	22	9	90	59	22	9	90	-	1	1	-	-	59	32	91
Roxburgh																				
E.A.	-	-	-	-	94	31	12	137	94	31 m	12	137	-	-	-	1	4	5	95	47
Selkirk																				142
E.A.	-	-	-	-	61	15	13	89	61	15	13	89	-	1	1	-	-	61	29	90
Peebles																				
E.A.	-	-	1	1	30	8	8	46	30	8	9	47	-	-	-	-	-	30	17	47
Scotland						4,489														
E.A.	48	62	84	194	10,564	3,458	18,511	10,612	4,551	3,542	18,705	45	139	184	221	218 m	39	10,878	19,328	
G.A.	1	-	-	1	523	261	133	917	524	261	133	918	6	4	10	1	2	3	531	400
Total	49	62	84	195	11,087	3,591	19,428	11,136	4,812	3,675	19,623	51	143	194	222	220	442	11,409	20,259	194
																			8,850	

1. Including those holding Primary and Further Education Qualifications.

2. Including those holding Secondary and Primary and/or Further Education Qualifications or a further Education Qualification only.

Table EXX (contd.)

(c) Special schools and classes

Education authority area	Primary Qualification ¹				Secondary Qualification ²				Total				Conditionally registered teachers				Unregistered teachers				All teachers	
	Single Married M/ Men Women		Single Married M/ Men Women		Single Married M/ Men Women		Single Married M/ Men Women		Single Married M/ Men Women		Single Married M/ Men Women		Men Women		Men Women		Men Women		Men & Women	Men & Women		
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women						
Berwick EA	-	1	2	3	-	-	-	-	-	1	2	3	-	-	-	-	-	-	-	3	3	
Roxburgh	-	-	2	2	-	-	-	-	-	-	2	2	-	2	-	1	1	-	-	5	5	
E.A. Selkirk	-	-	-	-	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-	1	1	
Peebles	-	1	2	3	1	-	-	1	1	1	2	4	-	-	-	-	-	-	-	3	4	
E.A.	1	-	1	2	2	-	-	2	3	-	1	4	-	-	-	-	-	-	-	1	4	
G.A.	1	1	3	5	3	-	-	3	4	1	3	8	-	-	-	-	-	-	-	4	8	
Total	38	243	264	545	92	65	94	251	130	308	358	796	2	17	19	13	40	53	145	723	868	
Scotland	8	26	19	53	22	10	7	39	30	36	26	92	-	1	1	-	-	-	30	63	93	
E.A.	46	269	283	598	114	75	101	290	160	344	384	888	2	18	20	13	40	53	175	786	961	

1. Including those holding Primary and Further Education Qualifications.

2. Including those holding Secondary and Primary and/or Further Education Qualifications.

Source: Scottish Education Department, Edinburgh.

Scottish Education Statistics 1969.

H.M.S.O., pp. 184-189,

release students. But these characteristics are common to the country as a whole with the exceptions of the counties of cities and a half dozen of the most populous counties bordering on the cities. When advanced and non-advanced courses are both taken into consideration, only Caithness, Dumfries and Inverness may claim to have accomplished more than Selkirk in 1969 among those authorities with fewer than 130,000 population.² In view of this, the total of 24 full-time teachers employed by the Selkirk and Roxburgh authorities to cope with their 1,530 students, seems a modest one.

Table EXXI tabulates the Central Borders and Scotland further education statistics for 1969.

Adult Education

Adult education classes provided by the authorities of the four counties cater to a wide range of interests. Of 26 subjects specifically listed on the Scottish Education Authority report forms, seventeen were taught in the Borders during the 1967-1968 session, and two non-listed subjects were taught as well. Total enrolment for all courses in the four counties was 2,905 and effective attendance was 2,273 or 78%. Effective attendance ratios were about the same for men and women, but women students outnumbered men by almost five to one. Needlecraft was far the most popular subject accounting for 1,126, over 47%, of the women enrolled, almost 40% of all the students. Only two subjects,

² Scottish Education Department, Edinburgh.
Scottish Education Statistics 1969.
 H.M.S.O., pp. 190, 191.

Table EXXI

Students and Teachers in further education 1969¹

Students and Teachers in further education 1969-70															New Entrants		Overseas students		All students in education authorities colleges or centres		
Education authority area	Students in advanced courses				Students in non-advanced courses				Age at 31st December						Men	Women	Men	Women			
	Full-time sandwich	Day or Block re-lease	Other part-time	Total	Full-time sandwich	Day or Block re-lease	Other part-time	Total	Under 16	16	17	18	19	20					21 and over		
Berwick	-	-	-	-	-	-	10	142	47	7	9	4	10	6	69	-	117	-	80	72	152
Roxburgh	-	-	-	-	-	-	146	402	111	97	64	39	26	24	187	1	455	1	284	264	548
Selkirk	-	-	26	26	22	537	-	358	115	170	181	157	101	60	159	7	544	7	715	228	943
Peebles	-	-	-	-	-	-	-	39	-	9	1	6	2	1	20	-	36	-	11	28	39
Scotland	1,520	5,013	3,593	10,126	13,298	62,625	64,470	140,393	11,438	22,797	19,911	15,178	10,613	42,293	98,819	1,021	101,757	48,862	150,519	150,519	

Full-time teachers

Education authority area	Honours Graduates				Ordinary Graduates				Non-Graduates				Total	
	Men		Women		Men		Women		Men		Women		Men	Women
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women		
Berwick	-	-	-	-	1	-	2	-	-	-	2	-	3	-
Roxburgh	-	-	-	-	1	-	2	2	4	2	2	2	5	2
Selkirk	3	-	3	-	1	-	14	1	15	1	18	1	19	1
Peebles	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scotland	599	57 m	656	57 m	430	104	1,980	338	2,318	3,009	499	3,508	-	-

¹

Students are at October and teachers are at December, 1969.

Source: Scottish Education Department, Edinburgh.
Scottish Education Statistics 1969.
H.M.S.O., pp. 190, 191.

Music and General Science, attracted more men than women and these were small groups of fourteen each. All fourteen students in Music were men. Ten of the fourteen in General Science were men.³

Two-term courses were four and a half times as popular as those lasting a single term, but no three-term and no courses over a full year were conducted in the Central Borders in 1967-1968.

Table EXXII sets out the basic adult education data for Peebles, Roxburgh and Selkirk for the 1967-1968 session.

Education Authority Finance

In Table EXXIII the expenditures and incomes of the four Borders educational authorities are separated into the various major categories of outlay and receipts and the totals for all Scottish authorities are summed in the appropriate columns. The average expenditure in Scotland for primary and secondary education is 74% of the total current expenditure. All three Border counties approximate to this figure, Berwick spending 74%, Roxburgh spending 76%, Selkirk 77% and Peebles 76% on "school" education. No such comparability is found for spending on further education. The Scottish average in this sector is approximately 9 $\frac{1}{2}$ % of total expenditures. Berwick records 3 $\frac{3}{4}$ %, Roxburgh 2 $\frac{1}{2}$ %, Selkirk 1 $\frac{1}{4}$ %, and Peebles less than 1%. The good results obtained in the Borders must largely be credited to Central Government support of this item of educational costs. In any event, it is clear that

³ Scottish Education Department, Edinburgh.
Further Education County Reports.

Table EXXII

Enrolments and effective attendance at adult education classes in the

Central Borders and in Scotland during the session 1967-1968

Authority	One term Courses				Two Term Courses				Three Term Courses				Courses Over One Year				All Courses			
	Number enrollment		Effective Attendance		Number enrolling		Effective Attendance		Number enrolling		Effective Attendance		Number enrolling		Effective Attendance		Number enrolling		Effective Attendance	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Roxburghshire	54	275	44	236	91	570	67	428									145	845	111	664
Selkirkshire	18	36	18	28	108	384	75	267									126	420	93	295
Peeblesshire	26	63	23	54	54	327	41	236									80	390	64	290
Central Borders	98	374	85	318	253	1,281	183	931									351	1,655	268	1,249
Scotland	10,906	8,895	8,895	24,842	24,842	19,036	19,036	63,689	3,428	7,913	3,019	7,007	712	295	492	195	39,888	31,442	31,442	121,599
		28,394		22,855		84,997														

Source: Scottish Education Department, Edinburgh.
Further Education County Reports, 1968.

Table EXXIII

Education authority finance, 1968 - 1969

Current Expenditure									
Education authority area	Primary and secondary education		Further education		Education in hospitals and other places		Aid to pupils and students		Total current expenditure
	Adminis- tration	Salaries, etc. of educational staff	Salaries, etc. of educational staff	Social and recreational education	Other educational costs	Other educational costs	School meals	School health service	
Berwick	21	371	128	17	9	7	56	60	698
Roxburgh	49	563	210	18	9	8	70	85	1,088
Selkirk	24	314	124	45	32	1	17 m	38	602
Peebles	14	200	76	3	-	5	37	34	384
Scotland	4,348	71,895	35,408	8,941	5,344	1,718	5,812	12,857	151,529
Income									
Education authority area	Fees		Income from other education authorities		Total income		Net current expenditure		Net revenue expenditure
	School	Further education (including Industrial Training)	School meals	Other education authorities	Other income	Total income	Capital expenditure met from revenue	Loan Charges	
							School meals	Other	
Berwick	1	1	23	4	2	37	3	6	756
Roxburgh	-	1	36	2	12	51	2	3	1,111
Selkirk	-	8	14	14	8	44	-	-	680
Peebles	-	1	12	20	5	38	-	3	394
Scotland	294	685	4,344	344	1,727	7,384	113	595	165,102

Source: Scottish Education Department, Edinburgh.
 Scottish Education Statistics 1969.
 H.M.S.O., p. 192.

educational authority spending is still weighted disproportionately in favour of primary and secondary schooling in an era when industrial technology, business methods and service technology are advancing faster than formal schooling can adapt. A major restructuring of the education authorities' priorities, allocating more resources to the education of adults, as advocated in this study, could assist employers in the retraining and up-grading of their employees in step with advances in technique or alterations in market circumstances. The likelihood of serious and chronic unemployment or a continued drain of the region's youth could thereby be considerably reduced.

The Central Government has made some progress toward a major realignment of educational finances. Figure EI depicts the portions of the Central Government and education authority £ which are spent on the major categories of Table EXXIII. The portion devoted to further education has increased in recent years and indications are that it will grow more in the decade ahead. Three other segments expected to grow disproportionately are the universities, health and social and recreational provision. On the other hand, comprehensive education and the raising of the school leaving age must lead to an increase in expenditure in the schools sector. If all this needed expansion is to be brought about, Central Government will have to increase its contribution or new forms of Local Authority finance will have to be developed, perhaps municipal taxes.

It is impossible to show in the above chart the central government share of expenditure on social and recreational provision, administration and welfare and the education authorities share of expenditure on the education.

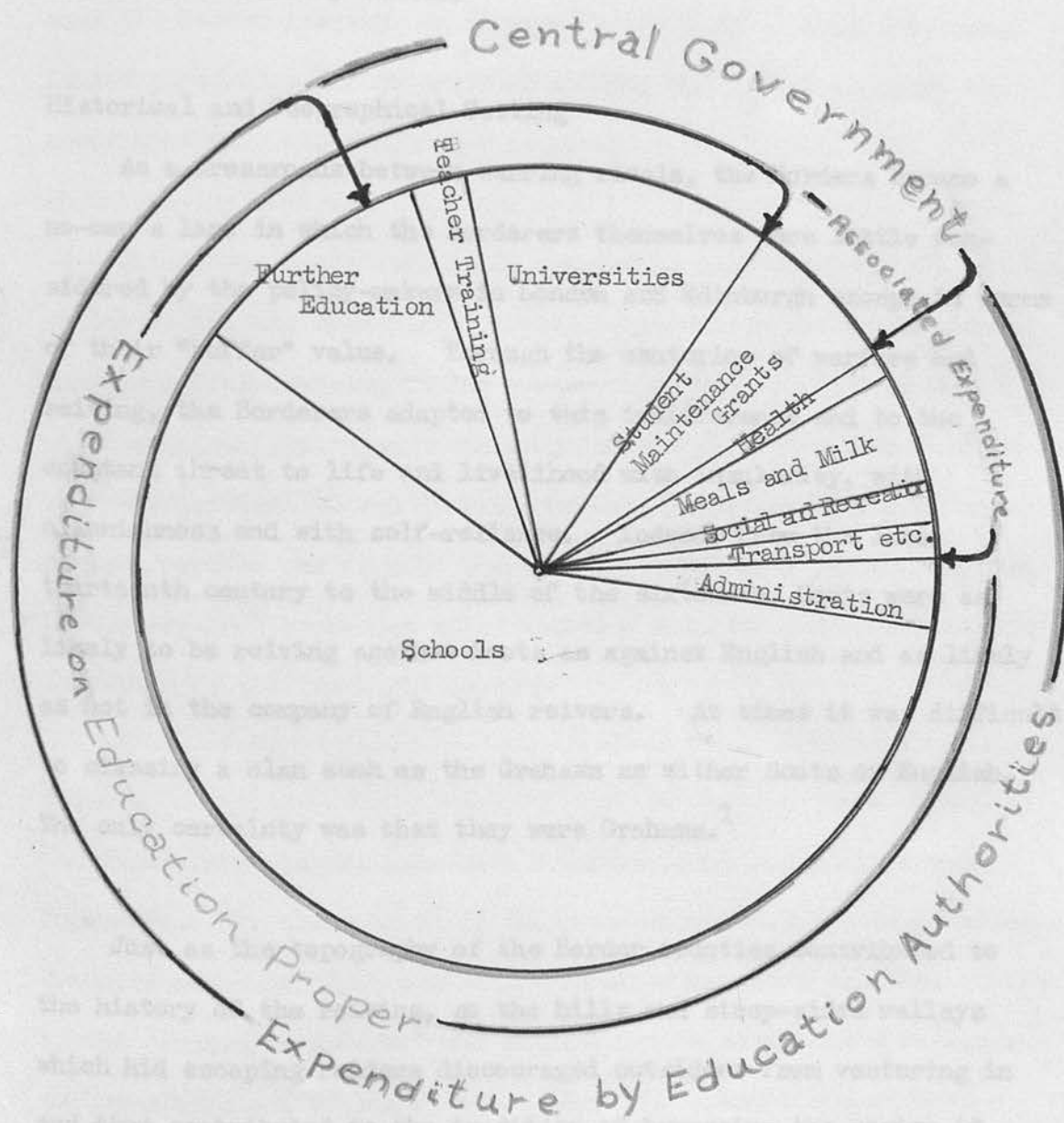
Source: Scottish Educational Department, Edinburgh.
 Scottish Government Statistical Office
 H.S.S.O., 1979, p. 74.

Figure EI

Expenditure

How The Money Was Spent: 1968-69

Total Current and Capital Expenditure on Education Analysed
By Major Services and By Spending Authorities



Note: It is impossible to show in the above chart the central government share of expenditure on social and recreational provision, administration and schools and the education authorities share of expenditure on the universities.

Source: Scottish Educational Department, Edinburgh.
Scottish Educational Statistics 1969.
H.M.S.O., 1970, p. 16.

Chapter 6. The Present State of Development in the Borders

Chapters II, III and IV set out geographical, historical and economic factors which have contributed to present conditions in the region. In this chapter the information presented thus far will be summarized to determine the impact these factors have on the lives of the people of the Border counties and on the communities and region in which they reside.

Historical and Geographical Setting

As a crossroads between warring rivals, the Borders became a no-man's land in which the Borderers themselves were little considered by the policy-makers in London and Edinburgh except in terms of their "buffer" value. Through the centuries of warfare and reiving, the Borderers adapted to this indifference and to the constant threat to life and livelihood with insularity, with clannishness and with self-reliance. Indeed, from the late thirteenth century to the middle of the sixteenth, Scots were as likely to be reiving against Scots as against English and as likely as not in the company of English reivers. At times it was difficult to classify a clan such as the Grahams as either Scots or English. The only certainty was that they were Grahams.¹

Just as the topography of the Border counties contributed to the history of the reiving, so the hills and steep-sided valleys which hid escaping raiders discouraged outsiders from venturing in and thus contributed to the tradition of bypassing the region if

¹Fraser, George MacDonald. The Steel Bonnets. Pan Books Ltd., London, 1974. Passim.

possible or hurrying through on the way to somewhere else. When Telford and McAdam and their successors crisscrossed the United Kingdom with the new roads of commerce, the Border hills were too steep and high for commercial traffic and the few roads that crossed the region threaded the narrow valley floors. As intercity commerce grew, these roads bore an ever increasing flow of goods, but there was no city or large town within the Borders to tap this trade and make the Border counties an integral part of it. Thus the region failed to develop the diversified economy which characterised the trade that used its roads as throughways.

Within the region the hills created as many difficulties to communication and transport. Upland communities which had been largely self-sustaining in the agricultural boom periods of the nineteenth century found themselves increasingly at a disadvantage as mechanization ushered in a new economy based on fewer and fewer centres farther and farther apart. The settlement pattern imposed by history and the Border hills became a major obstacle to economic viability in the twentieth century.

Climate

Their climate has been both a burden and a blessing to the Borderers. In the shadows of the protecting hills the temperature range is moderate, free from extremes of either heat or cold. Life in the valleys is pleasant and subject to few of nature's ravages. As one climbs out of the valleys, however, exposure and wetness become companion problems which rapidly diminish the habitability of the hills. Temperatures fall approximately 1°F for each 300 feet of altitude. Exposure to winds, rain, snow, fogs and frost

rapidly increases with increasing altitude and commonly is associated with wetter, poorly drained soils of inferior quality. Kelso, at 193 feet O.D. has a plant growing season that averages 219 days per year (temperature above 42°F) while at 1,400 feet O.D. in the Lammermuirs the season is just 175 days.² From the pleasant, temperate, fertile valleys to the sub-arctic tundras of the hill-tops is only a matter of a 1,000 to 2,500 foot climb.

Agriculture

Despite a narrow range of agricultural products, considerable differences exist between farms in different parts of the Borders Region. Sheep rearing holds almost exclusive sway in the upland farms of the west and on the Lammermuir and Cheviot hill farms in the north and south. Over the past decade the number of beef cattle started on the lower slopes in these areas has risen sharply and large sections have been taken over for forest crops, but sheep still constitute the major agricultural enterprise. In the central zone, including the middle Tweed Valley and a narrow crescent of west and central Berwickshire, stock farms specialize in the fattening of animals started on the upland farms and in the breeding and rearing of quality livestock which have won international acclaim. Further east in the Merse of the Tweed and on the lowlands between Jedburgh and Eyemouth lies the bulk of the arable land of the region. In this section, barley, wheat and oats and in recent years, vegetables (mainly peas) for food processing, are the major crops. Turnips, swedes and potatoes are grown in the lowlands and on

² Scottish Development Department, Edinburgh. The Central Borders: a plan for expansion. H.M.S.O., 1968, Vol. 1, p. 39.

lower slopes throughout the area, but the hectareage devoted to these crops is diminishing. Figure S1 shows this distribution of agricultural land usage in the region. When it is compared to the topographical depiction in Figure S2 the influence of the hills is apparent.

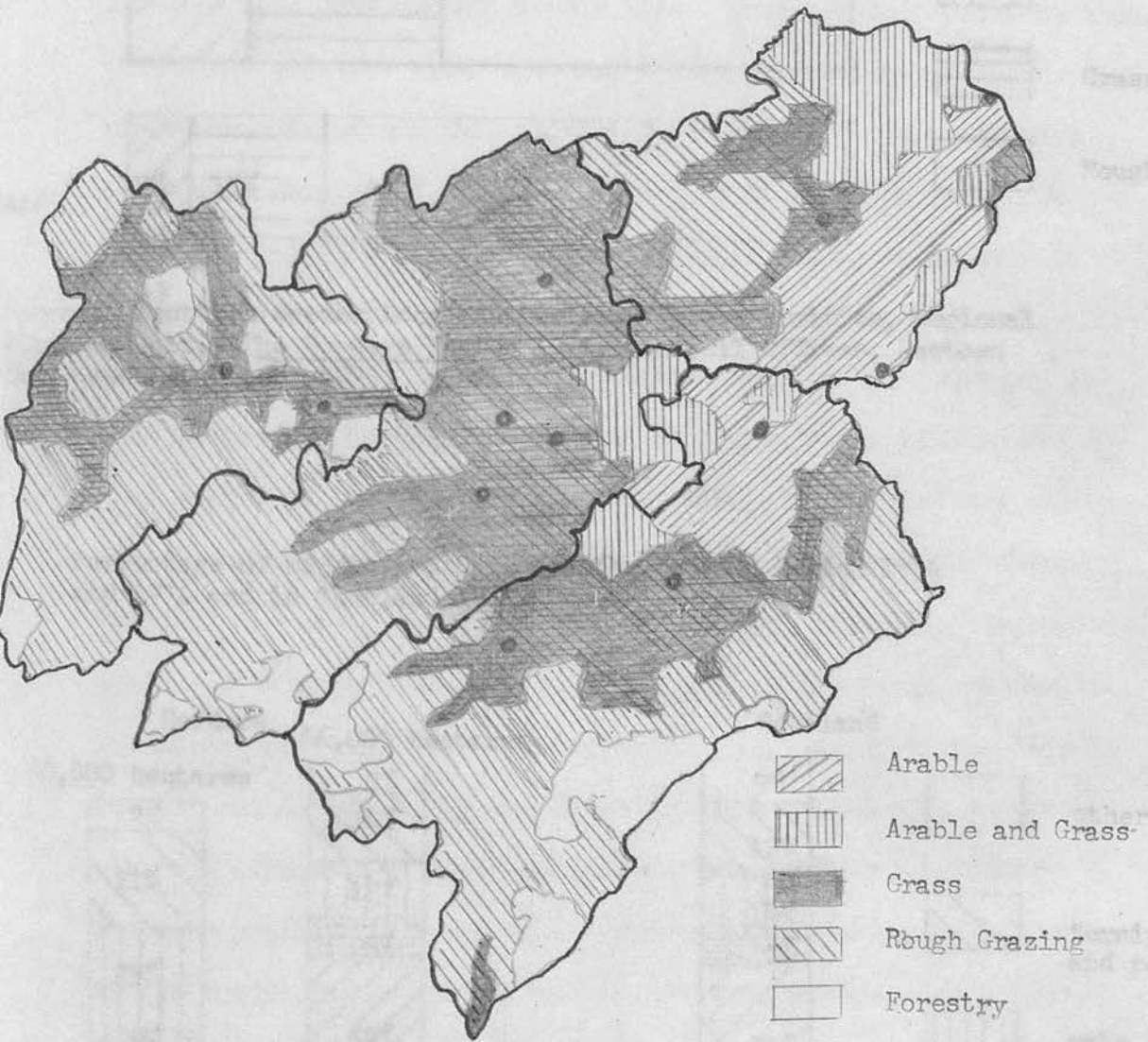
Figure S3 compares the distribution of agricultural land use in the Borders and in Scotland. It is clear from the figure that the quality of the land in Borders' farms is above average for Scotland in terms of hectareage devoted to cultivation and to grass. The smaller percentage (Borders 57%, Scotland 73%) of Border land relegated to rough pasturage may be attributed in part to the smaller size of Southern Upland hills as compared to their craggy counterparts in the highlands, but equally important are the more southerly location and protection from North Atlantic winds, which contribute to a warmer, drier climate than is enjoyed in Scotland generally.

Figure S4 compares the proportion of cultivated land in the Borders and in Scotland devoted to various crops. Sixty-seven per cent of the region's arable soil was planted in barley and wheat in 1974 compared to 62% in Scotland, while slightly smaller emphasis was given to each of oats, turnips, swedes, potatoes and other crops than was the average for Scotland.

The 1974 figures represent a considerable change in the Borders from ten years before. Wheat and barley hectareage in 1964 accounted for only 49% of cultivated land usage. In 1974 it was 67% Total

Figure S 1

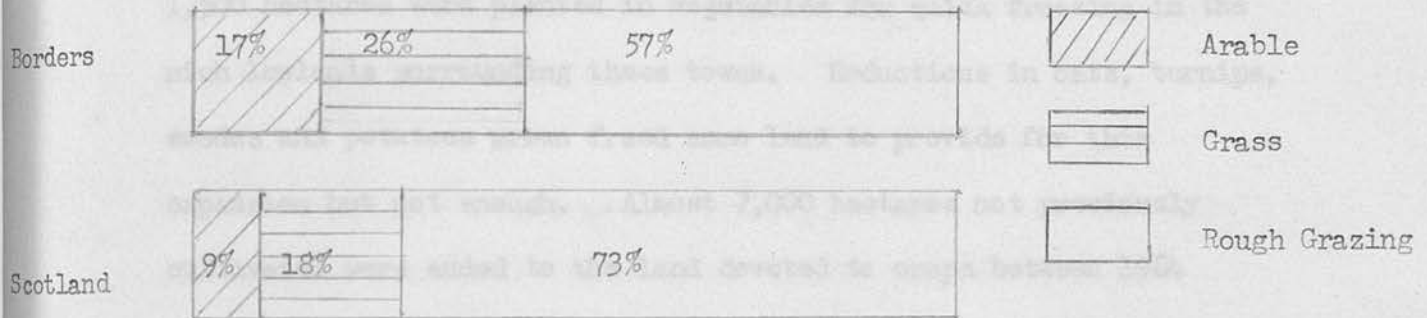
Dominant Agricultural Land Uses 1974



Source: Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Council Offices, Newtown St. Boswells, March, 1975, p. 24.

Figure S 3

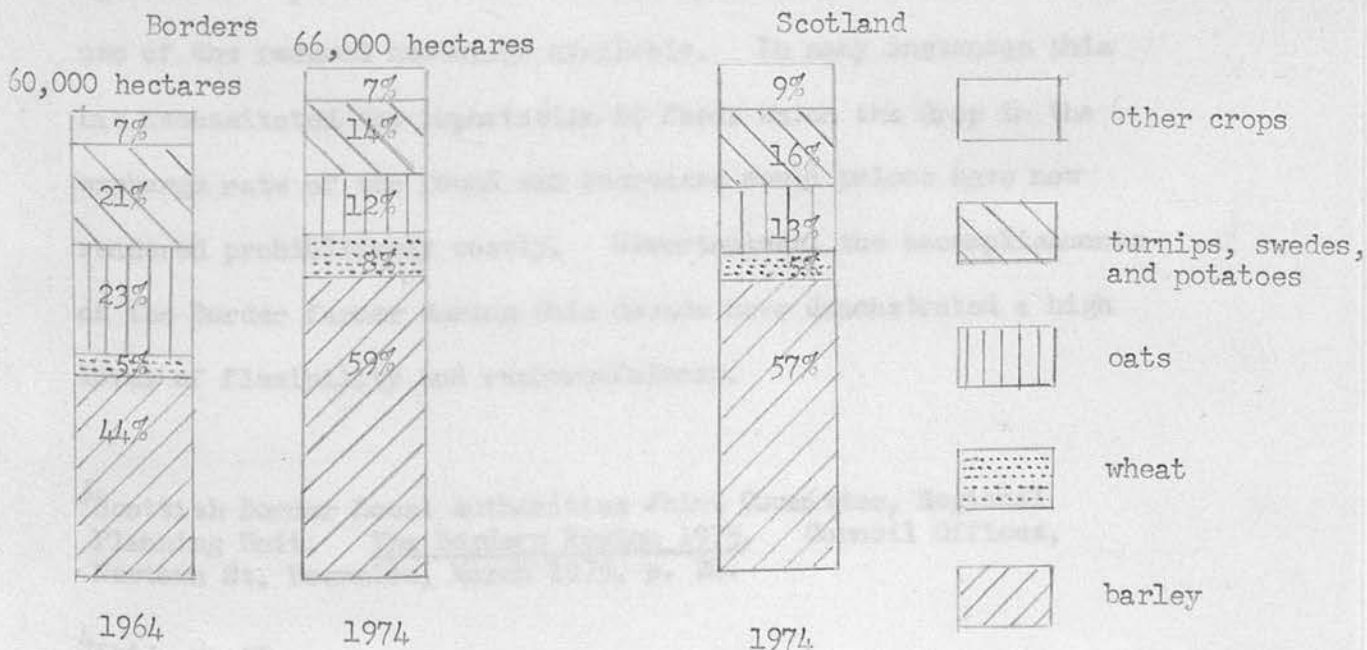
Percentage Distribution of Major Agricultural Land Uses
Borders and Scotland 1974



Source: Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Council Offices, Newtown St. Boswells, March, 1975. p. 24.

Figure S 4

Percentage of Major Crop Types in the Borders Region 1964
and 1974 and in Scotland 1974



Source: Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Council Offices, Newtown St., Boswells, March, 1975, p. 25.

hectarage in these two grains increased from 29,400 to 44,200 in this period, an increase of 50% in one decade. In addition, experiments with vegetable growing for food processing in Berwickshire in the late 1960's proved so encouraging that processing plants were established in Eyemouth, Duns and Jedburgh and by 1974, 1,500 hectares were planted in vegetables for quick freezing in the rich lowlands surrounding these towns. Reductions in oats, turnips, swedes and potatoes grown freed some land to provide for this expansion but not enough. Almost 7,000 hectares not previously cultivated were added to the land devoted to crops between 1964 and 1974, and this was accomplished despite a loss of 30,000 hectares of agricultural land to other uses³, mainly forestry. The land taken over for forestry was, in the main, rough grazings, so that the effect on arable land from this change was small, but during this decade the number of beef cattle on Border farms was increased by over 50%⁴, adding greatly to the pressure on grass and pushing more sheep on to the rough pasturage. The improvements in agricultural production were achieved primarily through intensified use of the reduced hectarage available. In many instances this has necessitated the importation of feeds which the drop in the exchange rate of the pound and increased world prices have now rendered prohibitively costly. Nevertheless, the accomplishments of the Border farmer during this decade have demonstrated a high level of flexibility and resourcefulness.

³Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Council Offices, Newtown St. Boswells, March 1975, p. 24.

⁴Ibid. p. 25.

One factor which contributes to the flexibility of Borders agriculture is the continued existence of large estates. Overall, 46% of Borders' farmland is rented.⁵ The size of the major estates is sufficient to permit experimentation and the practice of estate owners of combining farming, forestry and commercial sport makes them less vulnerable in the event of a misjudgement, crop failure or a downturn in a market.

Potentially the most serious problem facing agriculture in the Borders is a shortage of workers, notwithstanding the high proportion of their labour force presently employed on farms. The Borders' agricultural labour force declined by about 30%⁶ between 1964 and 1974. Of the 4,856⁷ farm workers in 1974, 42% were over 45 years of age.⁸ Unless the flow of workers from the farms can be stopped and a new workforce of young people can be recruited, a crippling labour shortage could result.

Population

The population of the Borders Region has declined relentlessly from a peak of 128,000⁹ in the 1880's to 98,477 in 1971, while the population of Scotland has continued to climb. The loss of

⁵Ibid.

⁶Ibid. p. 26.

⁷Ibid.

⁸Ibid.

⁹Ibid. p. 3.

population, though complicated by a number of factors, may be summarized as a loss of residents from the landward areas. Between 1881 and 1971, the loss to the rural areas amounted to 44% while the population of the burghs remained stable. In recent years some of the burghs (notably Kelso) have even turned the tide and grown substantially. At the least, the loss of population to the region appears to have slowed and an encouraging list of potential new residents awaits the construction of new housing.¹⁰

The age/sex structure is seriously unbalanced. A high proportion of the population are over retirement age; the ratio of females to males is high; there is a shortage of young married women; the Borders fertility rate is low and the death rate is high. An influx of young families is essential to correct the imbalance and employment opportunities and housing must be provided to encourage them to stay.

Employment

Industry in the Borders continues to be dominated by textiles and agriculture. The primary sector is much larger proportionately than in Scotland and the tertiary sector is smaller. Because textiles, the major employer for the region, utilize a high percentage of female workers, there is a concomitant shortage of male employment and a restricted number of opportunities for male advancement. The small service sector provides few encourage-

¹⁰ Borders Regional Planning Unit, Newtown St. Boswells.
A Profile of the Borders 1974. Interim Report, June, 1974, p. 26.

ments to entrepreneurs to ventures in self-employment. The industrial and business structure of the region offers little to those who attain advanced educational credits, nor is encouragement offered by the unusually few civil service and other government appointments. The influence of the two major industries is such that the region is noteworthy as having the lowest average gross earnings of any region in Scotland.¹¹

Low salaries and restricted male employment combine to set the norm of women continuing to work throughout much of their married life in order to achieve an acceptable standard of living for the family unit. The age/sex imbalance increases the number of unmarried females who remain in the workforce until retirement.

Agriculture, after the loss of almost half its full-time labour force since 1961, still accounted for 10% of the regional workforce in 1974. Prosperity in the Borders requires that agriculture prosper. Crop changes and improvements in output over the last decade suggest that prospects in this sector are good in economic terms. But the loss of farm workers, especially in the younger age groups puts a question mark to agricultural predictions. The erosion of the rural social structure that sustained the farm dweller and maintained his contacts with supportive services limits the potential of the farms to hold their present, ageing labour force or to attract replacements. Isolation, contraction of transportation and van supplies, closure of rural schools and

¹¹ Scottish Border Authorities Joint Committee,
op. cit., p. 43.

cottage hospitals, all add difficulties to life in the landward areas and raise the spectre of a labour shortage on Border farms.

Much needed growth has occurred in the tertiary sector of the economy over the past decade and a half, although as noted in the chapter on employment, this growth has lagged behind expansion in the national economy. With the change to regional status, some expansion of this sector may be expected, particularly with respect to jobs in local authority offices and in the reorganization of various agencies and services to conform to the new boundaries.

A Regional Centre

The confirming of regional status on the Borders has not solved the problem of fragmentation which has beset it for so long. It alone, of all the new regions in Scotland, is without a regional centre. This remains one of the fundamental obstacles to regional development. The Johnson-Marshall recommendation that development be concentrated in a "central corridor" has not been implemented to date, but the completion of the infrastructure necessary to development at Tweedbank provides an opportunity to the new regional authority to take a major step in this direction. The Borders Region has no airport, no major seaport, no railway station, motorway or dual carriageway and its bus service is deteriorating. A regional centre with a population of 50,000 to 75,000 is needed to generate the activity and services which would create the need and revenue for the provision of a first rate communications network within the region and with the major cities that surround it. Central corridor development is still the shortest route to the solution of this problem.

Disadvantaged Groups

It is clear that those who live in the remote valleys are penalized by comparison to town dwellers in a variety of ways. The lack of transportation services, and social and recreational facilities, has been mentioned earlier. Of those who live in the landward areas the difficulties are greatest for the elderly, the very young, and mothers of preschool children.

Thirty-eight per cent of the elderly in the Borders live in villages or scattered rural dwellings.¹² Van services, on which the elderly depend for their food purchases are infrequent, often inconsistent and in some cases non-existent. In her comprehensive study, "The Needs of the Elderly in the Scottish Border Counties", Dr. Rosamond Gruer points out that whereas 4% of the elderly living in towns benefited from meals on wheels, just 1% of those in rural areas enjoyed this advantage. Similarly, 4% of the elderly in towns had home help compared with 1% of those in the country.¹³ There is a pressing need for sheltered housing throughout the Borders, but a Roxburgh Report in 1971¹⁴ showed that although accommodation was then required for 112 persons in the landward area of the county, no accommodation existed or was projected outside the burghs.

¹²Gruer, Rosamond. The Needs of the Elderly in the Scottish Border Counties. Department of Social Medicine, Edinburgh University, p. 28.

¹³Ibid. p. 29.

¹⁴Roxburgh County Council, Working Party Report. Eventide and Sheltered Homes. January, 1971. p. 7.

In 1971 there were 2,937 three and four year old children in the Borders Region, of which 1,162 lived in the landward areas.¹⁵ There were no nursery school facilities for any of the rural children. In 1972 the education authorities entered upon a programme of nursery class provision. In 1975 there were nursery class places for 200 children in five burghs¹⁶ and many more independent play groups are active throughout the area, but many children in the rural areas still do not have access to either. The shortage of day care nurseries and creches to free mothers of young children to enter the workforce is also a greater problem in the landward parts of the region.

For schoolchildren the closure of small rural schools and the necessity to travel to and from classes by bus means that after-school clubs are seldom open to them, while in their home neighbourhood the schoolhouse which formerly served as a community centre for them and their parents is gone. The sparse rural population frequently will not support a Brownies or Scout group or a music or dance teacher, public transportation to those available in the burghs is not convenient if available and when available is frequently too expensive. (Fig. S5.)

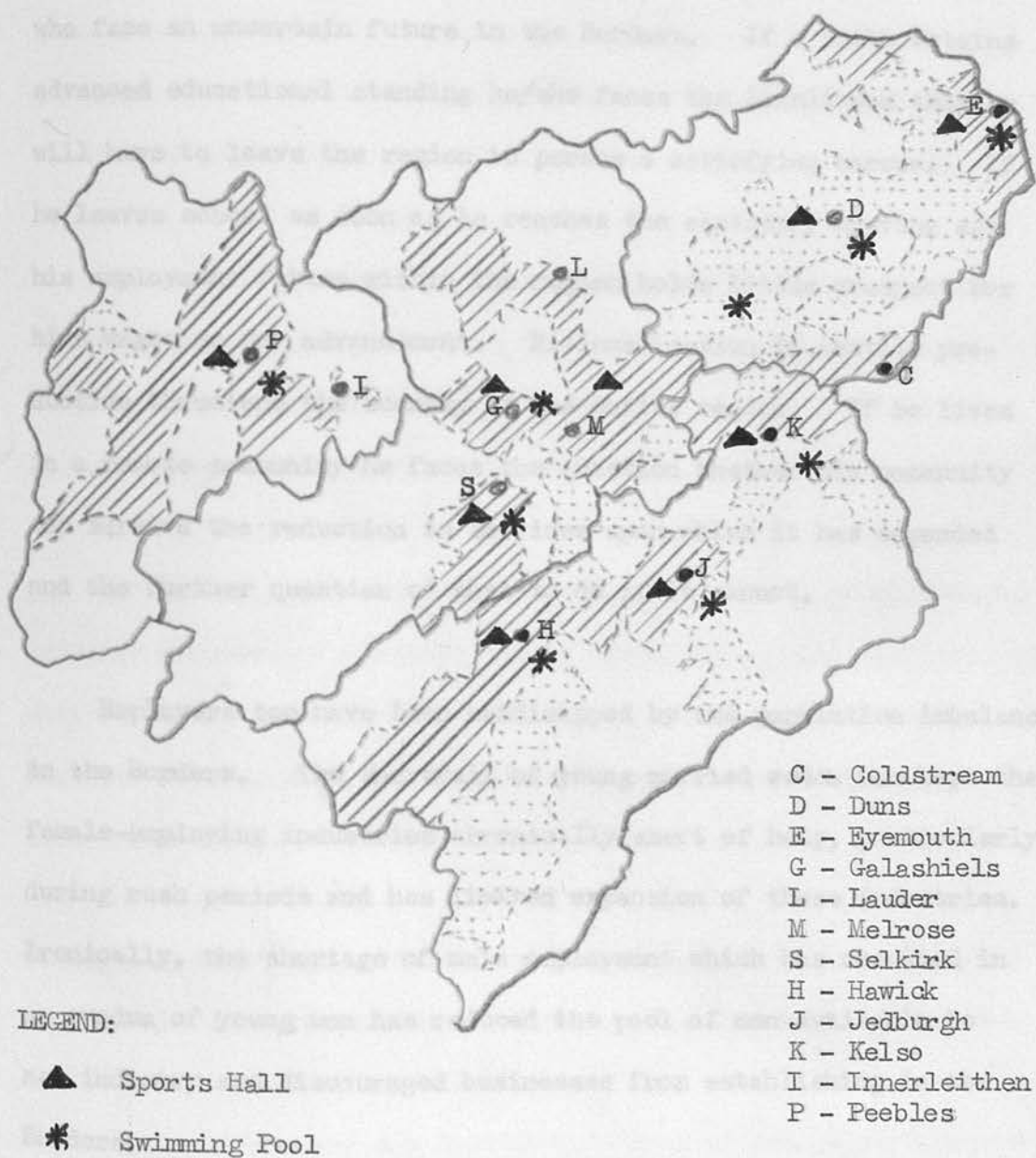
Women in the landwards areas have fewer opportunities for work. Many of those who are employed work in the burghs so that a part of their wages is lost in the cost of transportation every day. In

¹⁵ Scottish Border Local Authorities Joint Committee, op. cit. p. 42.

¹⁶ Scottish Border Local Authorities Joint Committee, op. cit. p. 41.

Figure S5

Availability of Public Transport to Swimming Pools
and/or Sports Halls
(a two hour stay at pool or hall is assumed)



Source: Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. County Offices, Newtown St. Boswells, March, 1975, p. 44.

many parts of the region when husbands drive off to work in the morning their wives and children are virtually isolated.

Perhaps the largest disadvantaged group is the young people who face an uncertain future in the Borders. If a youth obtains advanced educational standing he/she faces the likelihood that he will have to leave the region to pursue a satisfying career. If he leaves school as soon as he reaches the statutory leaving age his employment future within the region holds little prospect for high wages or for advancement. Rationalization in textile production threatens the economy of the entire region. If he lives in a remote community he faces the question whether his community can survive the reduction in services upon which it has depended and the further question of what to do if it cannot.

Employers too have been handicapped by the population imbalance in the Borders. The shortfall of young married women has kept the female-employing industries chronically short of help, particularly during rush periods and has limited expansion of these industries. Ironically, the shortage of male employment which has resulted in an exodus of young men has reduced the pool of men available to new industry and discouraged businesses from establishing in the Borders.

Socio-Economic Problems Resulting from Employment Conditions in the Borders

The dramatic change in the industrial structure of the Borders over the past 100 years has been shown at many points in previous chapters. The pace of this change has accelerated in recent decades

and changes projected through the 70's forecast an even more rapid and radical shift in the employment base.¹⁷ These changes have not occurred without social consequences for the people of the Borders. Many of the consequences have been considered already. Reference to them at this point will serve to summarize the socio-economic problems stemming from the present Borders employment structure which must be considered in any plans for further development.

The underutilization of male workers and the consequent sustained exodus of young men from the region has resulted in a shortage of marriageable males, thus depriving many women of the opportunities for courtship and marriage.

Abnormally high employment activity rates among married women have had a number of results, two of which are smaller families and more "latchkey" children who return from school to empty houses. Absentee fathers and commuting fathers, who can only find work outside the Borders, exacerbate this problem.

Socio-Economic Problems Resulting from Migration

Rural residents have watched their communities disintegrate as the rural to urban migration drained away the population upon which their life style was dependent. Much of the supportive web that provided the warmth and security to rural communities has now gone and the village or county dweller faces a future of increasing

¹⁷ Bilton, J. A., Housing and Industry in Counties of Peebles, Roxburgh and Selkirk. Regional Planning Unit and Joint Planning Advisory Committee, Selkirk County Offices. Galashiels, February, 1974.

isolation and loneliness. The psychological effects of this deterioration are already apparent, as documented by Dr. Rosamond Gruer. There is little prospect for anything more than further deterioration.

Bussing of school children creates stresses, particularly where young primary school children are concerned. The absence of the small rural schoolhouses leaves many communities without a focus. Family life is further diminished by the inability of student members to get home for the noon-time meal. Concentration of recreational activities in the centralized schools deprives many bussed children of the social benefits derived therefrom.

The burden of a large elderly population with their dependence on services provided through volunteers weighs more heavily on a sparsely populated region like the Borders. Inevitably, there is a shortfall between need and available service. The elderly suffer the loss and those unable to provide the services suffer from anxiety and frustration.

Shopping is more difficult and frequently more expensive as a consequence of the continued closing of rural shops and the shrinkage of van services. The difficulties are greatest for the housewife, who is increasingly dependent on week-end shopping trips to the major burghs or to cities outside the Borders.^{18, 19}

¹⁸ Scottish Development Department. The Central Borders: A Plan for Expansion, Vol. 2, Edinburgh, H.M.S.O., 1968, p. 12.

¹⁹ Scottish Border Authorities Joint Committee, op. cit., p. 19.

For the aged person living alone the problems of isolation, inflation and transportation compound the difficulty of preparing nutritious meals on a regular basis. Within the burghs, meals-on-wheels and other voluntary programmes, and the availability of companions with whom meal invitations may be exchanged relieve the accumulated effects of these companion problems. For those in the rural parts of the four counties there may be no respite from the tedium and the financial strain of well balanced and tastefully prepared meals three times a day, every day. No clear evidence of any discrepancies with respect to nutritionally-related health problems between urban and rural residents showed up in Dr. Gruer's study, but the survey was not designed to draw out this particular distinction and it seems reasonable to speculate in light of the extreme rate of inflation in the 70's, that a repetition of the study would provide evidence to this effect today. At any rate, isolation, inflation and transportation problems are worsening month by month to the distress of all rural residents, but especially the elderly living alone.

Without a population concentration sufficient to warrant a cultural centre, no entertainment complex has developed in the Borders, so that concert, theatre, gallery and museum attendance requires a drive to larger towns and cities outside the region. It is not known if this has been a factor in the outmigration from the Borders, but there is little doubt that it is a disincentive to new industry. The availability of cultural amenities ranks high on the list of priorities sought by executive personnel when new locations are investigated. Here again the need for a

regional centre is pervasive. A cultural focus is needed to provide for and to hold the present population and to attract new residents.

Medical-Social Problems Resulting from a High Incidence of the Elderly in the Borders

Dr. Gruer's study detailed the medical and to a lesser extent the social frailty of the elderly population of the Borders. The study provided a measure of the seriousness of several common complaints of older men and women and shortfalls in the health and social services available to cope with these conditions.

One per cent of those surveyed were blind. Twenty-three per cent suffered impaired vision. Twenty-six per cent were observed to have some hearing problems and an additional thirteen per cent considered themselves to have hearing difficulties although this was not obvious to the researcher. Twenty-five per cent were unable to cut their own toenails and a further one per cent had difficulty doing so. When the proportion of those surveyed and found to be bedfast or chairfast and/or normally incontinent of urine or doubly incontinent, is applied to the 1971 Borders population, a total of 542 people are estimated to have been thus afflicted. Of this number, 347 were institutionalised. The remaining 195 were looked after by relatives in their homes.²⁰

These statistics only begin to outline the problem. Table S1 compares the accommodation available in the Borders in 1971 with Dr. Gruer's estimates of actual need at the time. The total

²⁰Gruer, op. cit., pp. 16, 50.

estimated need is for 1,712 places compared to the 1971 provision of 1,030. Five places were needed for every three provided.

On the other hand, the great shortage is not hospital beds, but sheltered accommodation, a far less costly form of housing, described in the Roxburgh County Council report "Eventide and Sheltered Homes" as,

accommodation for elderly persons who are to all intents and purposes tenants of their own houses and there are available the services of an unobtrusive neighbour in the form of a warden employed by the Local Authority. It is desirable that Sheltered Houses are purpose built or suitably adapted to provide individual bed-sitting rooms, kitchens and toilets. Bathing and laundry facilities can be shared if necessary.²¹

Local authority housing of the standard constructed in recent years in the Borders is more than adequate for sheltered homes. Design modifications to fit the sheltered homes description would in most cases reduce unit construction costs rather than raise them.

Obviously, sheltered accommodation is much cheaper to construct, equip and man than general hospital accommodation. Thus the bulk of the unmet need identified by Dr. Gruer is for a lower grade of care than was provided for the frail elderly in 1971. Since 1971 a start has been made in the provision of sheltered homes, but much remains to be done.

Table S1 shows that, after sheltered accommodation, most of the unmet need is for residential places in Eventide Homes described in the Roxburgh Working Party Report as

²¹ Roxburgh County Council, Eventide and Sheltered Homes, Working Party Report, January, 1971, p. 1.

Table S 1

Need for accommodation compared with provision

Accommodation	Estimated need	Provided (1971)	
Hospital beds	477	206 geriatric 180 psychogeriatric	} 386
		43 general also used 65 cottage also used	
		494 total	
Residential Places	369	304 local authority 154 voluntary	
		458 total	
Sheltered Accommodation	846	28 local authority 50 voluntary	
		78 total*	

* Provision has increased since survey

Source: Gruer, Rosamond. The Needs of the Elderly in the Scottish Border Counties. Department of Social Medicine, Edinburgh University, Appendices, Table 106.

residential accommodation to provide community living in suitable premises for those elderly persons who cannot or should not be left in their own homes or in the homes of relatives and who require to be looked after almost on a 24 hour basis. The residential accommodation can also be used to provide short stay and day care facilities for elderly persons so that their relatives who are looking after them can have some relief.²²

Residential accommodation, although more expensive to build and operate than sheltered housing, still represents a less costly form of care than hospitals. As sheltered and eventide accommodation become available some elderly patients occupying expensive hospital beds but well enough for some degree of self-care will be relocated, freeing needed hospital facilities for the use of others. Complaints have been registered that hospital active treatment beds in the Borders are used for geriatric care of patients who could have remained in their homes had there been someone to provide supervision or minor care.

The typical hospital in the Borders is a cottage hospital which provides a limited range of care, but which operates on a smaller budget than larger, better equipped institutions. Eventide Homes and sheltered homes are other examples of economical alternatives to the general hospital and all three fit well into the social milieu of the Borders. The long term policy of the Scottish Home and Health Department, as noted in the Johnson-Marshall study, "that treatment of acute illness --- will increasingly be centred on a series of large district general hospitals catering for acute, maternity and psychiatric cases" and that "long term treatment of the elderly

²²Ibid.

will tend to be carried out in the smaller cottage hospitals"²³ seems eminently practical, so that the closing of cottage hospitals in the Borders is difficult to understand.

Delivery of health care to all ages is a problem in remote parts of the Borders. Dr. Gruer's study indicates that a surprisingly small proportion of this care is provided by the community nursing service, especially health visitors. The burden falls on the family doctor. Since the doctor cannot make frequent, regular visits to every patient on his list, some must see him rarely, if at all. Co-ordination of paramedical services is needed to bridge the obvious gaps in care and to relieve the heavy load on doctors.

Psychological and Behaviour Problems

Loneliness and its behavioural side-effects such as depression and a loss of interest in one's diet, may be considered one side of the problem of isolation. The dependence of old people, the anxiety and frustration their dependence causes them and causes those who are tied down by their dependence, are aspects of this side of the coin. The effects are not easily seen or measured. They are suffered by the individual, usually privately.

The other side of the problem is more obvious because it has visible social consequences such as marriage break-up, delinquency, alcoholism, drug abuse and dependence on government and voluntary agencies.

²³ Scottish Development Department,
op. cit., Vol. 2, p. 25.

Alcoholism

Alcoholism has been on the rise (throughout Scotland) for some years.²⁶ The 1969 reports of the Scottish Home and Health Department confirm that this trend is continuing. Both new admissions of alcoholics to hospitals and re-admissions increased through 1967 to 1969. This was true for males and females although the rise was predominantly on the male side.

The average length of stay in the mental hospitals is less for alcoholic patients than for other patients, thus the proportion of the total hospital bed-days taken up by alcoholics is less than the proportion of total admissions alcoholic patients represent. This tends to reduce the apparent seriousness of the alcoholic addiction problem in published hospitalization figures. The illusory effect of these statistics is increasing. The average length of stay of alcoholic patients discharged in 1968 was nine weeks. For those discharged in 1969 it was seven weeks.²⁴ The cost, both economic and social, is clearly a serious handicap to Scottish and Border development aspirations.

Drug Misuse

Drug misuse has not been as serious a problem in Scotland as in other parts of the Western world or some other parts of Britain, but worsened during the late 1960's. The use of cannabis in

²⁶Before regionalization separate statistics for the Borders were not computed.

²⁴Scottish Home and Health Department, Scottish Health Services Council, Health Services in Scotland: Reports for 1969. Edinburgh, H.M.S.O. Cmd. 4392. Aug. 1970.

particular increased, especially in Edinburgh. The use of amphetamines too appeared to be on the rise during this period as evidenced by the frequency of their prescription by doctors. Statistics on drug misuse are sketchy, but what statistics are available including numbers of convictions for drug possession, suggest a higher incidence of misuse in the cities than in rural areas such as the Borders.²⁵ On the other hand, continued disintegration of the social fabric of Borders rural communities creates an environment conducive to anomie which elsewhere has been associated with a high incidence of alcohol and drug abuse.

Health and Nutrition

Any criticism of Scottish dietary habits traditionally points to an excessive inclusion of starches and sweets, and the bakers of the Borders are acclaimed far and wide. Selkirk Bannock, renowned on both sides of the Atlantic, is just one of their famous products. Hence it would be unrealistic to expect Borderers to deviate from the Scottish norm.

In 1968 the Standing Medical Advisory Committee and the Standing Nursing and Midwifery Advisory Committee set up a joint sub-committee to consider "the formulation of general principles governing the feeding patterns of children in the first two years of life."²⁶ Their report set out the basic principles of infant

²⁵ Scottish Home and Health Department, Drug Misuse in Scotland Report of a sub-committee appointed by the Consultative Committee of Medical Officers of Health in Scotland. Edinburgh S.H.H.D., 1970.

²⁶ loc. cit. Cmd. 4392, 3.7.

nutrition and established a goal of securing consistency of advice and practice throughout the country. The sub-committee reported that only 7% of mothers in Scotland breast feed their infants for more than three months, that fresh cows' milk is frequently substituted contrary to medical advice, that much feeding with starches is introduced earlier and earlier so that a pattern of habitual overfeeding develops which contributes to chronic obesity in children and eventually in adults. The traditional reliance on pastries is inculcated by infant feeding practices.

Venereal Diseases

It is reasonable to assume that in the Borders the changing social and economic environment has contributed to the emergence of the new, less-disciplined life styles which have become so prevalent during the past two decades and the concurrent increase in the number of cases of venereal disease. But, although the assumption of a connection is reasonable, no method for calculating such a contribution has been devised so that the assumption is perforce, unprovable. In any event, statistics for the Borders Region must be inferred from total Scotland figures since regional data are not available.

Scottish statistics reveal a substantial increase in cases of venereal disease reported by physicians between 1960 and 1970. In 1960 a combined total of 4,500 new cases were reported of syphilis, gonorrhoea and non-specific urethritis. By 1969 the yearly total had increased by more than a thousand.²⁷ Despite this, venereal

²⁷ Scottish Home and Health Department, Scottish Health Services Council, op. cit., p. 9.

diseases were less common in Scotland in 1969 than in many of the developed countries, although this differential had been noticeably reduced in the two years following 1967. Like all other parts of the world Scotland has been affected by liberalized attitudes to sex, the introduction of the "pill", increased mobility of the population and the emergence of resistant strains of the disease-causing organisms.

Criminal Activity

To the tourist or the passerby the Borders transmits the appearance of a quiet, orderly way of life. This appearance is not contradicted by statistics for delinquency and sheriff's court cases. Table S2 compares the number of jury trials in sheriff's courts from 1960 to 1965. Because the Jedburgh Sheriff Court, office and procurator fiscal also serve Hawick, Duns and Selkirk, the two courts listed may be regarded as representative of the Borders generally. The total of three cases heard in these courts during the six year period reinforces the initial impression of law-abiding communities.

The 1961 census enumerated only four persons in places of detention in the four counties.²⁸ Although the absence of major penal institutions invalidates assumptions predicated on this figure, the low number at the least does not discredit the impression of peace and good order.

²⁸ Census 1961, Scotland, Age, Marital Condition and General Tables. Table 20, p. 99.

Table S2

Number of Civil Jury Trials Heard in Sheriffs Courts, 1960-1965

<u>Court</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>Total</u>
Glasgow	7	8	3	2	1	2	23
Hamilton	1	2	2	-	1	-	6
Airdrie	1	1	-	-	-	-	2
Edinburgh	1	-	1	3	-	-	5
Linlithgow	-	-	-	1	-	-	1
Dundee	-	-	-	-	-	2	2
Perth	1	-	-	-	-	-	1
Paisley	4	4	5	1	-	-	14
Greenock	1	-	1	1	-	-	3
Stirling	-	-	1	1	-	-	2
Falkirk	-	2	3	1	1	-	7
Alton	-	-	1	-	-	-	1
Dumbarton	3	1	-	3	3	3	13
Kilmarnock	-	-	2	1	-	1	4
Dunfermline	-	-	-	-	1	-	1
Jedburgh*	-	-	1	1	-	-	2
Hawick	-	-	-	-	1	-	1
Oban	-	-	-	1	-	-	1
Nairn	-	-	1	-	-	-	1
Totals	19	18	21	16	8	8	90

*Sittings also at Hawick and Duns. The Procurator Fiscal serves Jedburgh, Hawick, Duns and Selkirk.

Source: Scottish Home and Health Department, The Sheriff Court. Report to the Committee Appointed by the Secretary of State for Scotland, (Chairman: The Rt. Hon. Lord Grant, T.D.). Presented to Parliament by the Secretary of State for Scotland by Command of Her Majesty July, 1967. Edinburgh, H.M.S.O., Cmd. 3248, Appendix V.

Marital Break-up and Viduity

Marriage break-up and widowhood add to the social welfare costs of modern societies. In a small region such as the Borders a disproportionately large welfare burden may retard economic development. Table S3 shows the numbers of men and women in the Borders' counties who were divorced or widowed at the time of the 1971 census and compares these numbers to those in the three southern planning regions of Scotland and to the numbers for all of Scotland in 1951.

Because the Borders has an unusually high incidence of retired people it is to be expected that the numbers of widows and widowers will exceed the Scottish average. The table indicates that this is so by comparison to southern Scotland in 1971 and as compared to Scotland as a whole in 1951, although the imbalance is largely one of widows rather than widowers.

As noted earlier, the divorce rate in Scotland has increased markedly over the past two decades and this too, is apparent when the 1951 census figures are compared to those for 1971. Thus, the percentage of divorced males in the Borders is 50% greater than the Scottish percentage for 1951, but is just three-fifths the percentage for southern Scotland in 1971. The percentage of divorced women, on the other hand, although twice the 1951 Scotland average, is just equivalent to the percentage of southern Scotland. No greater economic burden is thus foreseeable because of marriage break-up, but should the migration of the retired to the Borders continue, the costs of providing for the health and social welfare of this already outsized fraction of the Borders population may prove a deterrent to economic expansion.

Table S3
Population by sex and marital condition

	Males					Females				
	Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced
Berwick	10,030	4,430	5,150	415	35	10,750	4,140	5,240	1,305	65
Peebles	6,350	2,795	3,310	220	20	7,330	2,965	3,365	935	60
Roxburgh	19,840	8,735	10,240	800	60	22,120	8,830	10,370	2,755	165
Selkirk	9,880	4,370	5,080	390	40	10,990	4,395	5,125	1,360	110
Borders	46,100	20,330	23,780	1,825	155	51,190	20,330	24,100	6,355	400
%				4.0%	0.3%				12.4%	0.8%
Glasgow South-West and Borders Planning Sub-regions	1,326,325			41,120	6,645	1,431,535			155,245	11,710
Scotland (1951)	2,434,358			96,391 4.0%	5,609 0.2%	2,662,057			249,721 9.4%	9,748 0.4%

Source: For the Border Counties and the Glasgow, South-West and Borders Planning Regions, Census of Scotland, 1971, Population Tables 8 and 10. For Scotland, 1951, Census of Scotland 1951, General Volume, Table 30.

Housing in the Borders

The 1961 Census enumerated 96.58% of all the population of Scotland as living in private households.* The Border Counties were shown as having 96.38% in such units.²⁹ The population of the Borders counties shares the high proportion of separate, single unit householding that is common in Scotland and traditional throughout the United Kingdom. This is even more apparent when it is noted that of the 3.7% of the Borders population not so enumerated, 1.65% or almost one-half, were resident in hospitals and homes for the aged or disabled, and only 0.17% were living in communal establishments. The latter statistics compare with 1.57% and 0.28% for Scotland.

In 1951 the average house in Scotland had 3.37 rooms, occupied by 1.05 persons per room or 3.54 persons per house. The Border counties averaged 3.77 rooms, or 0.85 persons per room and 3.20 persons per house.³⁰ By this measure, Borderers in 1951, enjoyed larger premises than Scots generally. It should be remembered, however, that the high incidence of rural dwellers living in farm homes and in the beautiful private homes of Melrose and other prestigious areas, many of which were built many years ago when construction costs were less than today, over-compensates for the cramped flats in some of the burghs, particularly in Galashiels.

* A household is defined as one person living alone or a group of persons, whether related or not, living at the same address with common housekeeping.

²⁹ Census 1961, Scotland: Age, Marital Condition and General Tables. Table 20, p. 98.

³⁰ Census 1951, Scotland: General Volume. Table 43, pp. 67, 69.

and Hawick. Indeed the conditions endured by many residents were shocking and deserved the description of slums, so that acceptance of a high average rooms-per-person figure would be misleading.

The distinctive features of Borders' housing lie in the patterns of tied housing, tenancy and in the standard of accommodation which has been enjoyed or endured, and in the trends which have altered these patterns in recent years.

Considerable upgrading of accommodation has been accomplished since 1951, but as late as 1966 the 10% Census revealed 3,060 households in the Borders had no hot water taps, 6,250 had no fixed bath, 2,610 had no inside water closet and 820 of these householders shared an outdoor facility with others, while 150 households had no toilet facilities whatever.³¹ Table S4 details these conditions. Government action in 1969 and 1971 sharply increased the number of improvement grants for the repair and upgrading of sub-standard housing throughout Scotland, especially between 1969 and 1973, after which the necessity for restraint in all government spending reduced the availability of this assistance. Within the Borders the effect was to reduce the number of houses lacking one or more of the basic amenities (fixed bath, inside water closet and hot water) from 5,669 in 1951 to 2,335 in 1971 when this activity reached an all-time high.³² Correction of these conditions elsewhere, while failing to keep pace in the two major burghs, resulted

³¹Census 1966, Scotland. Ward Tables.

³²Scottish Border Local Authorities Joint Committee
op. cit., p. 13.

Table S4.
Household Amenities in the Borders 1966

Burghs	Hot Water Tap		Fixed Bath		None	Inside W.C.		Outside W.C.	No W.C.	All Exclusive Amenities
	Exclusive	Shared	Exclusive	Shared		Exclusive	Shared	Exclusive		
Duns	570	-	510	-	130	560	40	40	-	510
Eymouth	720	40	720	40	30	780	10	-	-	720
Lauder	200	-	160	-	50	180	-	10	-	160
Coldstream	450	-	440	-	20	440	-	20	-	430
Hawick	4,640	10	3,860	10	1,850	4,690	610	120	-	3,850
Jedburgh	1,060	-	1,020	-	170	1,110	30	30	-	1,010
Kelso	1,310	10	1,230	10	130	1,310	30	20	-	1,230
Melrose	570	-	510	10	70	560	10	-	-	500
Galashiels	3,440	10	2,730	-	1,530	2,970	10	270	10	2,710
Selkirk	1,650	10	1,360	10	600	1,570	50	80	-	1,340
Innerleithen	700	-	590	-	210	770	-	20	-	590
Peebles	1,920	60	1,670	100	320	1,900	110	50	20	1,650
Total Burghs	17,240	140	14,800	180	5,110	16,840	900	660	30	14,700
District of East	1,930	10	1,880	-	250	1,940	30	70	20	1,830
Middle	1,580	-	1,540	-	20	1,640	-	60	30	1,520
West	1,340	-	1,210	10	210	1,340	20	20	10	1,200
Hawick	1,290	-	1,240	-	10	1,320	10	-	-	1,240
Kelso	1,260	10	1,220	20	100	1,300	10	-	20	1,200
Melrose	1,760	10	1,700	10	130	1,790	10	30	-	1,700
Jedburgh	1,050	-	1,030	-	50	1,060	-	10	10	1,020
Broughton	310	-	300	-	10	310	-	-	-	300
Innerleithen	480	-	440	-	90	500	-	20	10	440
Linton	640	-	610	-	40	640	-	-	10	610
Peebles	660	-	350	-	20	370	-	-	-	350
North	500	-	430	-	70	490	-	10	-	430
South	290	-	270	-	30	290	-	-	10	270
Total - Districts of Counties	13,090	30	12,220	40	1,030	12,990	80	220	120	12,110
Grand Total						29,830				

Source: Census 1966, Scotland.

Ward Tables.

in a further concentration of low amenity housing in Hawick and Galashiels from 37% of all such households in 1951 to 55% in 1971.³³ This concentration of sub-standard housing is, in part, an historical one, deriving from the construction of private housing during periods of affluence in the textile centres in earlier times. When these houses came on the market as rental accommodation, the owners either were unable to obtain a sufficient revenue to warrant improvements in line with changing times and expectations, or were unwilling to reduce their income to make the improvements. Gradually, private rented accommodation grew to represent a disproportionately large segment of the Borders sub-standard housing stock, as it does generally throughout Britain.

A second source of sub-standard housing is less common. 17% of all owner-occupied dwellings in the Borders in 1971 lacked one or more of the three basic amenities, hot water, inside water closet and fixed bath. This was true for just 8% of owner-occupied housing throughout Britain. For Hawick and Galashiels this figure was 30%.³⁴

Apart from these pockets of unimproved units the improving housing situation is further documented by reductions in the stock of houses defined by local authorities as below a "tolerable standard". This standard specifies minimum conditions of structural stability, cooking facilities, humidity and heating control, ventilation, lighting, water and toilet facilities, access and drainage. By 1975 the number of houses defined by

³³Ibid.

³⁴Ibid.

local authorities as below a tolerable standard in the Borders Region had fallen from 5,584 in 1969 or 16% of all housing, to 2,709 or 8%. Of the remaining houses, "below standard", 1,700 or 63% were located in Galashiels and Hawick.³⁵ The nature of the problem in these two burghs, is such that environmental improvements are required in addition to housing repairs, necessitating substantial local authority investment in neighbourhood redevelopment which may be unavailable for some years, given the straightened circumstances of the British economy in the mid-70's.

Although the population of the Borders has declined over the past 20 years and house construction has proceeded at a faster than usual pace, the Borders Region still faces a pressing shortage of housing. The demolition of old and unsuitable units has contributed to the continuation of this problem, but the major cause has been the decline in the size of the average household. This is shown in Table S5.

Table S5 Declining Average Household Size
in the Borders 1951-1971

Persons	% of All Households in the Borders			% of All Households in Great Britain 1971
	1951	1961	1971	
1 & 2	40.2	47.2	53.4	49.1
3 & 4	41.4	37.8	33.7	35.2
5 or over	17.3	15.0	12.9	14.3
Total households	35,574	34,201	35,540	*

Source: Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Council Offices, Newtown St. Boswells, March, 1975, p. 10.

³⁵Ibid.

The Borders Region has attracted retired individuals and couples for many years and their presence in one and two person households, has contributed to an average household size below the Scottish norm. Shortly after the end of the World War II a global trend to smaller families took hold and was accompanied, in the western world, by a trend to two generation households. The result has been a significant reduction in average household size. This has been so for Scotland and for the Borders Region and the Borders has maintained both a greater percentage of pensioner households and a smaller than average household size in comparison with the whole of Scotland. Pensioner households in 1971 accounted for 27% of all Border households but just 21% of all households in Scotland.³⁶

As with other population trends in the Borders Region the decline in the landward areas has been greater than in the burghs and has been greatest in the western uplands and in the rural lowlands along the Berwickshire coast. Where increases did occur in the landward areas the growth could usually be attributed to one of the larger villages. Larger than average household increases in Melrose, Peebles and Coldstream put additional pressures on available housing but the population of the burghs increased relatively little.

To attract new industry a region must have an available supply of labour. As noted earlier the Borders has little surplus labour, but has a potential supply in the Borders Build-Up Register.

³⁶Ibid. p. 10.

Many of the men and women on this list await only the availability of housing before they will move to the region. Some of the prospective immigrants have been waiting for years, but a shortage of housing continues to frustrate their plans, despite an unprecedented building programme from 1965.

Between 1967 and 1970 more than 800 houses were added to the housing supply each year. Seven thousand and eighty-two new houses were built in the ten years following 1965. But the housing shortage continued. Between the 1961 and 1971 censuses the number of houses in the Borders Region increased by 7.8%, but the number of occupied dwellings increased at half this rate, reflecting the addition of new households rather than an increase in population.³⁷

Where did the extra dwellings go? They were vacated. 3,260 vacant dwellings were recorded in the 1971 census,³⁸ almost doubling the vacancy figure for 1961. Part of the increase may be attributed to a demand for higher standards and more amenities but the major source of vacancies appears to be the continued migration from the landward areas to the burghs. New construction in the burghs is being absorbed by the Borderers themselves.

Pressures on available private housing is even greater than on S.S.H.A. units. Incoming families, particularly retired persons and outsiders looking for a holiday home or homes from which to commute to jobs outwith the borders, compete with local buyers in the undersized private housing market.

³⁷Ibid. p. 12.

³⁸Ibid.

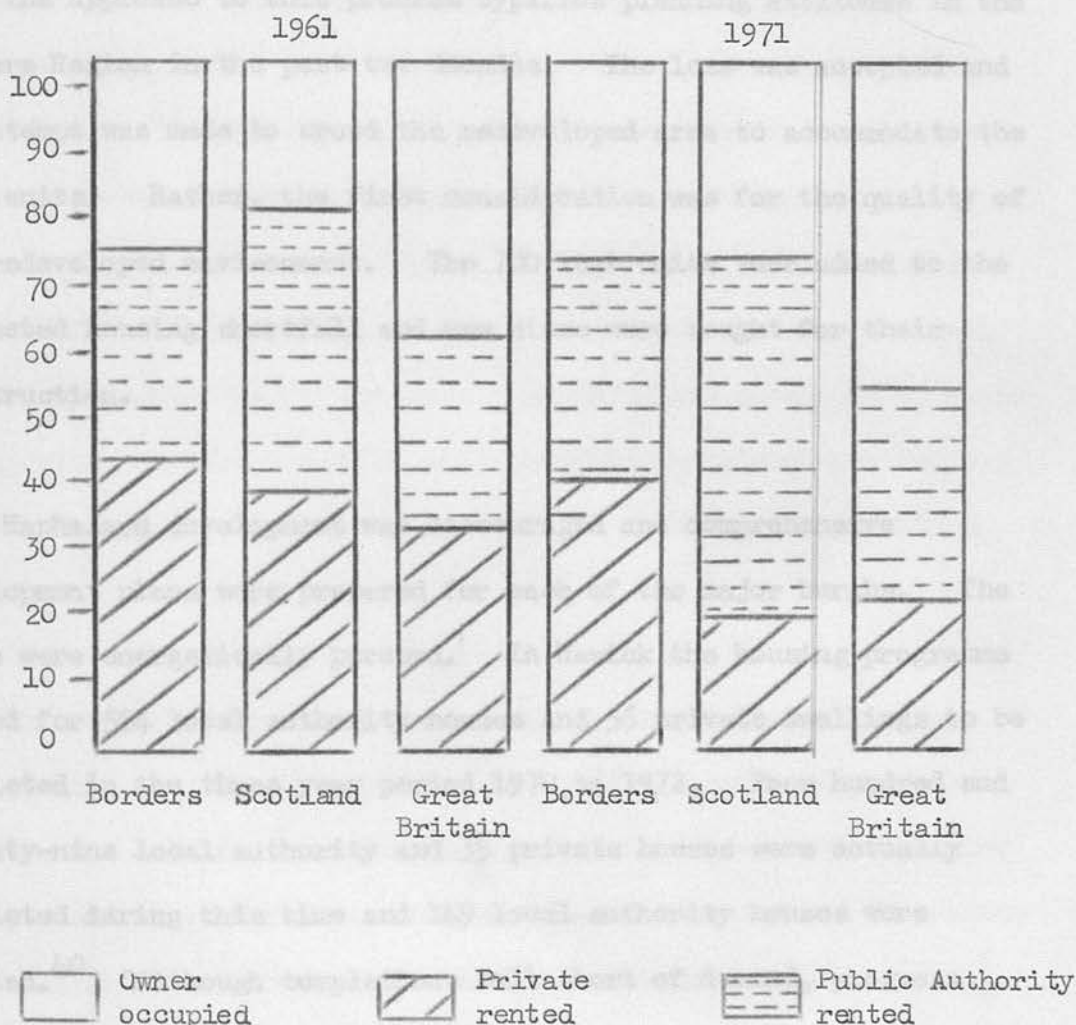
Paul Gregory, Regional Planning Co-ordinator for the Scottish Border Local Authorities Joint Committee, in "The Borders Region 1975", points out that private sector construction contributed little to the increased pace of house completions in the Borders over the past two decades. The key contribution between 1967 and 1970 was the S.S.H.A. and this appears to have been the case since 1970 as well. He illustrates his point by statistics for 1974 when 26% of all house completions in the Borders were in the private sector compared to 42% in all of Scotland. At the same time he acknowledges that a downturn in private house completions in Scotland has not been matched in the Borders and the differential has narrowed.³⁹

Figure S6 illustrates a number of the foregoing changes in tenure in the Borders during the 1960's. The growth in the Borders of the public authority rented sector is obvious as is the decline in private rented accommodation in all three jurisdictions. Some growth is shown in both the Scottish and British owner occupied sectors, while this portion of Borders' housing remains static. By 1971, about 70% of dwellings in the Borders and in Scotland were rented, compared to about 50% for Great Britain, but in all three jurisdictions local authority responsibility for rented accommodation had increased significantly. The burden on taxation and rates is becoming a threat to economic tolerance. Some way to reverse the trend to public provision is needed to free more of the government treasury for economic expansion.

³⁹Ibid.

Figure S6

Comparison of Tenure in the Borders, Scotland and Great Britain
in 1961 and 1971



Source: Scottish Border Local Authorities Joint Committee, Regional Planning Unit. The Borders Region 1975. Council Offices, Newtown St. Boswells, March, 1975, p. 12.

Housing in the Burghs

Mention has been made of the concentration of sub-standard housing in Galashiels and Hawick and of the need for environmental improvement before many of these houses could be brought up to standard. In Hawick, the Hawick Working Party*, in their Interim

*Hawick Working Party appointed by the Roxburgh County Council and the Hawick Town Council to prepare a plan for development for the burgh of Hawick.

Report estimated there were in the burgh about 1,900 sub-standard dwellings of which 700 were either beyond improvement at a reasonable cost or would have to be sacrificed to central area redevelopment.

The approach to this problem typifies planning attitudes in the Borders Region in the past two decades. The loss was accepted and no attempt was made to crowd the redeveloped area to accommodate the lost units. Rather, the first consideration was for the quality of the redeveloped environment. The 700 lost units were added to the projected housing shortfall and new sites were sought for their construction.

Haphazard development was discouraged and comprehensive development plans were prepared for each of the major burghs. The plans were energetically pursued. In Hawick the housing programme called for 554 local authority houses and 56 private dwellings to be completed in the three year period 1970 to 1972. Four hundred and seventy-nine local authority and 35 private houses were actually completed during this time and 149 local authority houses were started.⁴⁰ Although completions fell short of demand, progress was tangible and the environment was enhanced in the process.

Kelso provides another example of excellent local initiative to meet existing housing needs and to plan for development. In direct contrast to the limited growth threshold proposed for Kelso

⁴⁰ Roxburgh County Council and Hawick Town Council, Hawick: A Plan for Development. Technical Working Party Final Report, Tweeddale Press, Hawick, 1973.

in the Central Borders plan, the Working Party of the Roxburgh County Council Planning Department set a population objective for the burgh of 8,000 by 1985, double the 1965 population.⁴¹ The stated objective of the Kelso plan was to provide "housing in excess of their general needs to accommodate incoming workers and the allocation of suitable areas of land for the building of municipal and private houses to facilitate the industrial expansion of the Burgh".⁴² To this end the town was divided into four distinct environmental areas, the historical, natural and architectural amenities of each area were identified, traffic routes were designated and new development was planned to preserve and enhance the beauty bequeathed by the past. Proposed new development, henceforth, would be considered not only on their individual merits, but also on the appropriateness of their "fit" with the neighbourhood as a whole.

The first Working Party Report was completed in March, 1967. It projected that by 1970, 310 houses would be completed by Kelso Town Council and 40-50 through private construction. By September 1970 council completions exceeded the projection by 2 and 65 private dwellings had been added to the housing stock in the burgh.

The concentration of sub-standard dwellings in Galashiels is offset by the plans for Tweedbank. Whereas redevelopment of the town core was hampered previously by a shortage of housing and

⁴¹Roxburgh County Council Planning Department, Burgh of Kelso Policy Statement. Kelso, January, 1971; Revised February, 1972, p. 2.

⁴²Ibid. p. 3.

the constriction of building land within a narrow valley floor, the provision of sufficient new accommodation for 4,000 people, complete with such recreational and environmental amenities as playing fields, a park and a miniature lake ensure that housing pressure will be lifted from the central portion of the town so that redevelopment may proceed.

Addition of population equivalent to one-third of the 1971 burgh figure should increase the purchasing power of the Galashiels consumer catchment area sufficiently to encourage the establishment of a wider range of retail establishments than are now there. This, in turn, may encourage new Galashiels-focused shopping patterns with the result that Borderers begin to look to this burgh and neighbouring municipalities in the central corridor as the regional centre.

Hawick, Kelso and Galashiels typify the approach to new housing and to redevelopment of burgh councils in the Borders. A sense of history, an appreciation of their architectural heritage and a determination to preserve their beautiful natural environment underlie their planning decisions. The need for new industry, a larger population and dwellings in which to house the newcomers has not driven them to quick or easy solutions.

Housing in the Villages

Some 70 places in the Borders may be classified as villages or hamlets. They range in size from loose associations of buildings containing, perhaps 40 people, to tight collections of dwellings accommodating up to 1,000. Their importance varies according to a number of criteria including proximity to cities or large burghs,

road connections with other centres, public transportation, number of services available and a variety of social, cultural and age-related conditions. They are few and scattered through the valleys of the hilly south and west, and more numerous in the lower northern areas of Selkirkshire and Roxburghshire, and throughout Berwickshire.

The population decline in the countryside having drained off the clientele for the village shops and services, much of the *raison d'être* for many of the villages has been eroded away. Offsetting this, in part, have been the twin phenomena of second-home acquisition and retirement immigration.

Although the purchases of houses by outsiders has reduced village dereliction, it has not compensated for the loss of the market population required to keep village businesses viable. Moreover, those who have purchased second homes are absentee villagers much of the time and thus contribute little to the economy or to the social fabric of the community. The increased incidence of car ownership in the rural areas has changed shopping patterns. Weekly multi-purpose shopping trips to the burghs have cut deeply into daily local purchases. Many of the villages, if they are to survive, are going to have to find a new role to warrant their continuance in such altered circumstances.

Three kinds of businesses have persisted in most of the villages, the "pub", the post-office-cum-grocer shop, and the garage-repair shop. These provide a nucleus around which the new village form may be constructed. The public house might be

exploited as a social centre with a range of social activities focused upon it rather than upon dilapidated halls or schoolhouses. The post-office-shop might expand its range of wares to that of a general store and become as well, a communication and distribution centre for such services as meals-on-wheels and volunteer drivers. The garage-repair shop might expand its role as the supplier of services to farmers in the village hinterland, perhaps taking the form of the North American agricultural co-operative.

Continued de-population of the landward areas might have been expected to markedly increase the supply of empty houses and contribute to a buyers market in village housing. In fact, the demand for this housing by those seeking a second home in the country and by those looking for a retirement home has been so great that every available dwelling has found a number of willing buyers and house values have skyrocketed over the past several years. Local residents now find the price of private village housing out of their reach so that a shortage exists. Construction of Council housing to meet this new circumstance has fallen far behind the demand. It will be difficult to balance the pressure for new housing against the desire to maintain the unique environment of each village. But if the design of public housing is not in sympathy with the village environment it may appear blatantly intrusive and a centuries-old and dearly loved setting may be harshly altered to the dismay of those who live and those who visit there.

Many villages in the Borders are at a crossroads in their history. Some must find a new purpose to justify their continued existence. Some face pressures for development which should be

resisted. A few face opportunities for limited development which should be accepted cautiously. Many are subject to housing pressures which could radically change their environmental heritage. Development decisions over the next few years will be crucial ones for villagers in the Borders. Village life will be changed by these decisions. That is inevitable. "By how much?" and "In what direction?" remain to be answered.

Personal Security in the Borders

As statistics of thefts, housebreaking and assaults escalate year by year and as we are made more aware of injuries and deaths resulting from natural and man-related disasters such as earthquakes, floods, landslides, hurricanes, epidemics, insurrections, fires, as they occur around the world, one's own safety and remoteness from these hazards assumes relatively greater importance. The location of one's home, geographically and societally, vitally affects the peace of mind one may expect to enjoy in that home.

Criminal activity in the Borders has been considered already. From the standpoint of freedom from criminal harassment, Borderers are well blessed. Their streets and roads are remarkably safe by day and night; unprovoked attacks are rare and men, women and children may relax in their homes secure in the knowledge that forced entry is almost unknown.

Natural disasters are equally unlikely in the Borders. As pointed out in the section on climate, the worst one expects from the weather in the Borders is a chilling haar or a sustained, drenching rain. Snowstorms are few and short-lived. Winds of

gale-force are infrequent and confined for the most part to the Berwick coast. Earthquakes, tidal waves and floods are problems faced by others in other lands.

Consideration of the health services available in the Borders, in previous sections, has indicated the high standard of care enjoyed by all ages in the four counties. Improvements are possible, but few parts of the world could boast of greater security in terms of protection from epidemics, diagnosis and care of disease, hospital care and a wide range of ancillary health services. If a danger exists with respect to health provision, it is in the high cost of the programme and the diminishing ability of the taxpayer to bear the burden.

Recreational and Cultural Provision

It is in the development of the recreational and cultural potential of their region that Borderers have failed most obviously. Or is it a "failure"? Perhaps they have simply avoided the kind of success that would have despoiled their rivers, lochs and hills and cheapened their castles, abbeys and estates. Whichever is the case, tourists have largely bypassed the area in the past and much that is enjoyable and worthy of note has been missed.

The Johnson-Marshall Plan suggested a special tourism role for the Borders, the attraction of discerning visitors with specific tastes. The role is not a new one. The abbeys, rivers and hills have always drawn those with a strong sense of history or for whom the quiet waters and hills offered a peaceful spot to fish, to swim or to walk. To cater to this select group the Borders was to

expand its camping facilities and provide specialist holidays based on pony trekking, hill walking, guided tours and, in summer, on the Common-Ridings.

The authors of the Central Borders Plan recognized the great potential of this unspoiled region to draw sophisticated travellers at little risk to the natural beauty of the land. Of the 21 recommendations they made in their report, they devoted nine to this purpose. They were that:

- Melrose should be developed as a cultural centre.
- A Country Park should be set up between Peebles and Galashiels, and the creation of stretches of water for the concentration of recreation, including water sports, should be examined.
- A pedestrian system should be set up to link up with national routes, such as the Pennine Way, and places of local and national interest.
- Historic sites, such as Iron Age Settlements and Roman Camps, should be reconstructed and on display for educational and tourist interest.
- Sites should be selected for cabins for holiday visitors. Sites for tents and caravans, planted with trees, should be reserved for future development.
- An eighteen-hole golf course up to championship standard should be established in a central location.
- A wildlife reserve, with special viewing facilities, should be set up in the Country Park.
- The features of the natural landscape should be protected and improved, especially by much more planting of mature trees. A regional nursery is envisaged to supply large trees.⁴³

The decision of the authors of the Johnson-Marshall Plan, to recommend a concentration on the sophisticated tourist was based on analyses of visitors to the Borders in five studies conducted by the Scottish Development Department, the Geography Department of the University of Edinburgh, the Scottish Tourist Board and the

⁴³ Scottish Economic Planning Council, Scottish Economic Development, Quarterly Report: Border Special: A Plan for Expansion. Scottish Information Office, St. Andrew's House, Edinburgh, 1, April, 1968.

three county councils of the Central Borders. The studies indicated that the average visitor to the Borders comes from Scotland, Northern England, South-East England or Europe (in order of likelihood), belongs to an adults-only family, is 45 years of age or older, travels by car and stays in the Borders for only part of his holiday, often only one or two nights. His preferences are for passive recreational pursuits, visiting places renowned for their beauty, looking at shops, sitting and chatting, motoring and walking. Somewhat perversely, he complains about the lack of things to do, especially on Sundays, and about the weather and categorizes the region as a place for middle-aged highbrow tourists.⁴⁴ Their nine recommendations reflect the interests of this average visitor and go some way toward answering his complaints.

Melrose is particularly well suited to the role of cultural centre prescribed for it. Its Abbey, museum, town centre, beautiful setting and residential nature provide an ideal backcloth against which to build a Scottish Stratford, or better, an historical-cultural centre unique to the Borders. Nor is there a shortage of themes to weave into the panoply; the early Scots and their defiance of the Romans, the period of the great abbeys, reiving, the rough wooing, the works of Scott. The conception awaits an architect of imagination and flair. The setting is ready.

The Country Park recommended would meet the needs of the average visitor of the surveys and would, additionally, attract younger, more adventurous tourists and young families. The golf

⁴⁴ Scottish Development Department, op. cit., Vol. 1, p. 80.

course, caravan parks, wild reserve and pedestrian ways, likewise would expand the tourist base, but blend into the magnificent natural setting. Reconstructions of Iron Age Settlements, Roman Camps and Abbey communities complete with appropriately garbed Scots of the period, pageants and re-enactments, would bring history to life in vivid colour for locals, visitors and school excursions. The Borders have missed their share of tourist spending in the past. The potential is there to redress this loss in the future.

For the Borderers themselves there have always been, if not abundant, certainly a reasonable selection of recreational and cultural opportunities. Water sports, hunting, riding, hill walking, fishing, golf, bowling, tennis, cricket, pony trekking, football and rugby, are available to those who choose outdoors activity, while boards of education, youth groups and a variety of private and service organizations provide educational, social, dramatic, musical and sporting instruction and participation, in most burghs and larger villages. For the spectator the intense rivalry among the famous Border rugby teams offers exciting, first-class competition, while for spectator and participant alike, each town's Common Riding is a happy festival of several days' duration in which everyone participates. There are gaps in the recreational and cultural life of the Borders and the cultural spectrum may be narrow, but for those who seek involvement there is no shortage of opportunity.

Through television and radio the greatest artists in the world are projected into Border homes. Attendance at concerts of first-rank performers, on the other hand, requires a trip beyond the

borders of the region. The inadequacies of the public transportation system effectively limits this attendance on any regular basis to those who possess automobiles. The cost of travel, in time and money, is a further deterrent. Hence, although Borderers may enjoy the best entertainment available through their radios and television sets, they are restricted to local amateur groups and the lower ranks of professional touring companies for live performances.

The expanded city concept proposed by the authors of the Johnson-Marshall Report foresees a focusing of recreational and cultural attention on individual burghs, each specializing on an aspect of the field which accords with local tradition and all contributing to a total range of choice and quality comparable to a small city. Unfortunately, the concept depends for its success on a network of public transportation facilities which do not exist and which would be difficult to establish because the high hills and long narrow valleys discourage the establishment of road links between burghs in adjacent valleys. This does not render the concept unworkable. It does suggest that either the road system must be greatly improved or that new forms of passenger transportation must be developed before the stage is reached at which travelling from one point to another within the region will require no more outlay in time or cost than a similar trip within a city.

Until the expanded city becomes a reality there will continue to be uneven access to programmes available in the Borders. Among the disadvantaged will be those living in landward areas, particularly those without cars and those with young children and the children themselves, the poor who cannot afford the rapidly

inflating cost of transportation, the elderly who require more convenience and assistance when travelling, the disabled and those of fragile health, who require specialized transportation facilities. Until then, throughout the Borders, those who live in the major burghs have more opportunities for educational, recreational and cultural participation. By comparison to Scots who live in cities, even the burgh residents will be less well served.

Community Planning and Co-ordination of Development

In every community the local government has a responsibility to provide orderliness and stability for the peace, security and contentment of its citizens. It has an additional duty to provide development direction to the degree needed by the people to plan their education, their careers, their activities and behaviour in order to achieve constructive and rewarding work, leisure and community activities.

At the local level the tradition of the Border villages and burghs is of stable councils which have served their constituents well in terms of orderliness and direction. The many studies and development plans that have been prepared by individual towns affords excellent affirmation of this. The landward development strategies testify to the concern of the county councils and the regional plans, of Sir Frank Mears^{*}, of the Geography Department

^{*}Sir Frank C. Mears, A Regional Survey and Plan for Central and South-East Scotland.

of the University of Edinburgh, the White Paper on the Scottish economy^{*c} and the Johnson-Marshall Plan, many of them sponsored by the Scottish Council or the Scottish Development Department, evidence the interest and efforts of the central government to provide this guidance. Scottish Development Department grants to local and county councils to assist in the realization of these plans provide further substantiation of this concern.

On the other hand the plethora of local designs, many at variance with county or regional schemes, and the failure of any plan to gain acceptance by all levels of government, indicate the region's failure to achieve unanimity with respect to development directions. It is this failure which is responsible for the disjointed nature of burgh and county development and which has contributed to a resistance to change. Among its consequences may be the growing feelings of isolation and discontinuity suffered by residents of the rural areas.

The absence of an official plan has had a series of effects which have hampered economic growth. There is a shortage of prepared sites for the establishment of industry. Few advanced factories have been built. Transportation facilities for goods and personnel have diminished rather than expanded. Capital for investment is in short supply. Opportunities for work and advancement are reduced.

^{*c}The White Paper, The Scottish Economy 1965 to 1970: A Plan for Expansion. Cmnd. 2864, H.M.S.O.

Creation of the Borders Region should answer the need for area-wide planning and end the proliferation of unrelated local plans. At last the people in the landward areas should be able to see where their community will fit into future regional development. They will be able, finally, to assess their chances to remain, to work, to advance in their home town or hamlet.

Education

It is clear from the evidence presented in the chapter on education that the school system in the Borders is providing the children of the region with the means to attain the knowledge and to develop the skills, attitudes and social ideals necessary to personal growth, vocational competence and community development. The schools are adequate, the staff is competent, the direction of the system efficient and progressive, curriculum is under continuous review and the responsibility of public educational provision for the moral and ethical guidance of youth is recognized and accepted.

In addition to the provision of primary and secondary schools, there is a growing commitment to pre-school nurseries, day-care facilities, play groups and creches at the lower end of the educational ladder, and to further education colleges, day and block release courses, teacher education, university extra-mural classes and specialist training at the other.

Industrial training boards play a significant role in educational provision in the region. The Knitting, Lace and Net Training Board, the Construction Industry Training Board, and similar organizations established by the Ministry of Labour under

the Industrial Training Act, in co-operation with the Department of Education and Science and the Scottish Education Department, assess the need for training in the region and make recommendations as to the nature, length, and content of training needed in their industries.

Much of the educational provision in the Borders is of an informal nature deriving from the work of societies and clubs. These include specialist organizations such as scientific societies, local branches of national associations such as Women's Institutes, Townswomen's Guilds, youth clubs and the like, and social clubs. They are many and diverse, but their total contribution is great.

The weaknesses in educational provision in the Borders are weaknesses common to systems throughout the United Kingdom. First among these is that too many students drop out of the formal system as soon as they attain the statutory school leaving age. As a consequence, the economic, social and cultural benefits which should flow from the continued educational development of these young men and women is drastically reduced.

A second weakness is the failure of businesses within the region to take full advantage of the further educational opportunities available to them. Greater co-ordination is needed between the providers of education and the companies who supply the consumer of it. Through co-ordination costs may be reduced by eliminating duplication; employers and employees may be better informed of course offerings; training programmes may be better designed to fit local needs, and the potential benefits in increased

productivity and individual advancement may be demonstrated more visibly.

Educational and vocational counselling for students in school, for the unemployed and for those in employment who could benefit by upgrading courses, should be better co-ordinated also. Youth service officers might assume this responsibility in a totally integrated system.

The schools, the staff, the courses, indeed all the infrastructure necessary to the provision of a programme purpose-built to the needs of the Borderers and of Border industries is already present. The design of the programme and the orchestration of it awaits the determination of the regional board of education.

Pollution in the Borders

Woollen and hosiery manufacturing located in the Borders originally because the rivers of the region provided the power source for the water-driven machinery of early factories. With the conversion to steam power the industrial valleys experienced air pollution on the scale that gave to Edinburgh the unfortunate pseudonym of "Auld Reekie". This blight was endured for a hundred years until gas replaced coal as the power source and government legislation enforced emission controls on factories and homes and the skies cleared again. Increasingly stringent rules are helping to ensure that less obvious forms of airborne poisons will not endanger the land or its people.

The rivers and streams of the region are renowned around the world for their beauty and their fish. Thusfar they have escaped the despoliation that has been the lot of waters in highly industrialized areas. But the industrial base of the region is diversifying, sewage disposal is becoming a greater problem as the burghs enlarge, fertilizers are coming into greater use as farmers intensify their use of fertile land. The danger to Border waters is increasing. Constant vigilance and strict regulations are needed if a great natural heritage is not to be destroyed.

It is the land itself that has deteriorated most over the past half century. The high cost of help forced farmers to reduce their staffs below the complement needed to maintain their pastures adequately. Autumn burning of the heather was no longer done on a regular basis; ferns and low grade grasses invaded the fields; good pasture was overgrazed. Machinery and fertilization have enabled the farmers to compensate thus far, but the degeneration must be stopped and the degraded land must be restored if future generations are not to be deprived of thousands of hectares of productive land.

The cost to the Borderers of keeping pollution of their air, their water and their land under control is still a reasonable cost. The greatest component is contained in the industrial growth that must be foregone to avoid further deterioration. It is a price they must be educated to accept - to demand. Theirs is a land unsurpassed for pastoral beauty, tranquility and a lifestyle unspoiled by modern technology. It deserves their vigilant husbandry.

Chapter 7. Development Plans Proposed for the Region,
for its Burghs and for its Landward Areas

Town and Landward Plans

One of the remarkable aspects of the Scottish Borders is the ambition and self-reliance of the Borderers. This is nowhere more apparent than in the many attempts they have made to plan and carry out by themselves the revival of their towns or landward areas, sometimes in defiance of outside experts, as in Kelso's determined growth contrary to Johnston-Marshall proposals, and sometimes in defiance of the conventional wisdom of the day, as in the opposition of the four counties to the specification in the Wheatley Report of 200,000 as the minimum population necessary to the establishment of a viable region. Borderers share an intense pride in their land, in their history and in their ability to do for themselves. These convictions are reflected in the plans they have prepared for town and country development. A review of a few of these plans will illustrate this consistency.

The Royal Burgh on the Jed¹

Jedburgh, in the 1950's, experienced problems common to many old towns standing astride a main highway. Narrow streets, adequate for the vehicles of two hundred and more years earlier were bottling up the traffic of modern commerce. Old buildings were becoming increasingly unfit as accommodation for families or factories, by modern standards. A two-hundred year fall in population, from

¹ Scottish Development Department, Roxburgh County Council, Jedburgh Town Council, The Royal Burgh on the Jed: Report of the Technical Working Party 1964. Council Offices, Newtown St. Boswells, 1964.

5,800 to 3,647², had resulted in dereliction and incompatible land use in the town core. In June of 1962 agreement was reached between the Scottish Development Department, Roxburgh County Council and Jedburgh Town Council to study the problems and to prepare a re-development plan for Jedburgh.

A Joint Committee of Technical Officers was established to conduct surveys, make inspections and compile all data necessary to the presentation of a comprehensive report. An interim report was presented to a joint meeting of Jedburgh Town Council and Roxburgh County Council in March of 1963 and a final report was submitted to the councils in 1964.

The Working Party summarized objectives as:

1. The improvement of the environment, the proper arrangement of land uses and a new road network providing for separation in the movement of people and vehicles.
2. The rehabilitation of the central area to provide conditions suitable to modern ways of living and, in particular, create a traffic free shopping area.
3. To meet present needs and those of the projected increase in the population to 6,000, provision should be made for the expansion of existing industry and the establishment of new industries.
4. There should be more new housing at Howdenburn and more new houses built in the central area by the redevelopment of obsolete sites.
5. For education there should be an Education Precinct and for additional recreation a linked system of public open spaces related to the use of the Jed Water as an attraction for boating, fishing and walking.

All these must be so achieved that the town retains its historic character but is at the same time modernised for the latter half of the 20th century.³

²Ibid. p. 12.

³Ibid.

The caution "must be so achieved that the town retains its historic character" underlines the persistent bias of Borderers. Industries to be competitive, must have modern equipment and must be housed in buildings constructed for convenience and efficiency. Houses must be comfortable, roads must be capable of handling heavy traffic without bottlenecks or delays. All these things are recognized by the Borderers. But they must not be provided at the cost of the abbeys, squares, closes, streets and buildings that have given shape and character to their communities over hundreds of years. The present must not be permitted to destroy the past. Rather the theme is "wisely improve the present".

Roads

Recognizing that growth trends in road traffic in Scotland, as interpreted by the National Road Research Laboratory, forecast traffic volumes beyond the capacity of towns such as Jedburgh⁴, the Working Party recommended a system of a new trunk route avoiding the town centre, a distributory road system for the central commercial area, a conversion of the High Street into a pedestrian shopping precinct with service access and car parking provided at the rear by the demolition of obsolete structures there, and the provision of open space and recreational areas to improve visibility.

Industry

During the 1950's and early 1960's, Jedburgh's traditional reliance on textile production and agriculture was seriously eroded by the closing of three mills. Many workers moved away to find employment outside the Borders while others began commuting to new

⁴Ibid. p. 14.

jobs within the region, principally at Hawick. The establishment of a factory for the manufacture of precision tools by the L. S. Starrett Company Ltd., in 1958, created employment for approximately 200 persons. This had two effects; it had a positive psychological effect on the town since it ran counter to the persistent decline of the town's industrial base, and it signalled the end to the town's total dependence on textile employment. It renewed hope for industrial expansion within the town.

At the same time the number of workers travelling to work outside the town brought home the realization that the industrial and employment structure for Jedburgh could no longer be divorced from regional considerations. Economic decisions could no longer be determined on the basis of parochial loyalties or a desire for local autonomy. Communication and transport assumed a larger importance as planners looked to the viability of a regional economy rather than an individual burgh one.

That is not to say that attempts to expand the industrial base of the town were abandoned. The opposite is the case. The difference lies in an appreciation of the interdependence of elements of the region's economy and of co-operative development.

Redevelopment plans were prepared which included demolition of inadequate housing, zoned sites for new housing, and the preparation of serviced land for industrial expansion.⁵ Not least of the determinations of the report was a commitment to encourage

⁵Ibid. p. 20.

and support expansion proposals of existing and new industries in the town.

Housing

In addition to houses considered unfit, 160 temporary council houses erected to accommodate postwar families needed to be replaced in the 1960's. This, combined with the Starratt Company projected requirement of 500 houses, put Jedburgh's overall need for new housing at 800 by 1970, a projection which doubled the number of local authority houses in the burgh.⁶

Major redevelopment was planned in two decayed portions of the town and a new section was zoned as a housing area, but a key objective was the re-housing of people in the town centre. Provision for vehicular traffic, delivery access to the rear of shops, and pedestrian malls were designed so that the distinctive historical features of the burgh were enhanced by open areas and landscaping and by reconstruction, repaving, painting and colour-washing.

Schools

The anticipated increase in the population of the burgh to 6,000 was expected to include some 460 new pupils. To accommodate the enlarged enrolment an Educational Precinct was designated around the existing primary and junior secondary departments of Jedburgh Grammar School. As much land as possible within this precinct was to be acquired by the County Council, as Education Authority, to provide for future expansion of educational facilities.

⁶Ibid. p. 21.

The possible need for a new school (at Oakie Knowe) was foreseen, but no proposal was made for the purchase of the site. Nor was the purchase of land for playing fields proposed. It was accepted that existing public parks would continue to serve this purpose.

Although not specifically cited, the Working Party appeared to favour the establishment of further education and community education programmes within the Educational Precinct.

Preservation and Historic Area

In keeping with the strong sense of history in the Borders, a comprehensive list of buildings, principally those listed as of Special Architectural or Historical Interest by the Scottish Development Department, and standing in the main, in the Castlegate and Market Place, were designated for preservation and restoration, while new development in the same area was required to be "in sympathy in terms of use, scale and materials" with the historic facades, "and the retention of the existing building line"⁷ was deemed important.

Pedestrian walkways, landscaped areas, preservation of the Jed Water, wooded areas, open space and improvement of the approach to the Abbey, are all considered in the report.

The Report of the Technical Working Party for the Town Council of Jedburgh sets out a frame of reference for development plans in the Borders. It reveals the Borderer's love of his lands and its

⁷Ibid. p. 33.

history. It shows his intense parochial pride in the historic buildings, streets, closes, streams and hills of his immediate community. It identifies the aspects of development which he values; the attraction of industries that will provide jobs, the improvement of housing (and a readiness to accept local authority housing as the norm), the provision of good educational facilities and programmes, of social and medical services, consideration for the pedestrian, pleasant landscapes and recreational opportunities. These themes will be echoed in each of the other plans considered.

Kelso - Report of the Technical Working Party, 1965⁸

The Technical Working Party, set up early in 1965, consisted of officials of Kelso Town Council, Roxburgh County Council and the Scottish Development Department.

Professor Percy Johnson-Marshall of the University of Edinburgh was appointed to assist the working party, to undertake studies, in particular a survey and analysis of shopping and commercial facilities and traffic flows and movements. A firm of Consulting Civil Engineers, Blyth and Blyth, was appointed to examine and report on Kelso Bridge.

Background to the study

Like Jedburgh, Kelso is a market town which serves an extensive agricultural hinterland. According to a 1961 Board of Trade Census of Distribution, Kelso is the principal marketing centre for about

⁸ Kelso: Report of the Technical Working Party. Roxburghshire County Offices, Newtown St. Boswells, February, 1968.

8,000 people, 4,000 of whom live outside the burgh.⁹ Unlike Jedburgh, Kelso does not have an historic industrial base. It has survived as a marketing and service centre and as a meeting ground between the hill farmers of eastern Roxburghshire and the farmers of the arable Merse in Berwickshire and Northumberland. Modern transportation has brought larger markets within the reach of the Border farmers, diminishing the role of Kelso as a meeting place for the hill and Merse farmers, and rural depopulation has reduced the population of Kelso's catchment area as a market and service centre.

A Solution Proposed

To offset these conditions, to consolidate Kelso's role as a regional market and service centre and to establish it as a growth point in an overall development plan for the region, the Working Party determined that manufacturing had to be established in the town and that immigration sufficient to double the population to 8,000 had to be attracted. Since the infrastructure of the town appeared to be capable of expansion without major new investment, and a surplus of housing was available, the Working Party believed the additional population could be accommodated with a minimum of disruption to the burgh.

Architecturally, Kelso is one of the Border jewels. The ruins of its abbey, built by the Benedictine friars, dates from the 12th century, but the predominant style is Georgian, as is evident in the elegant mansions such as Ednan House, Walton Hall and Broomlands House, in the town hall and square and in Rennie's beautiful bridge over the Tweed.

⁹Ibid. para. 2.

To retain the 18th century character of the town centre and yet to lay down a pattern for development in the 20th century, the Technical Working Party proposed a division of the burgh into four areas.¹⁰ These environmental areas defined the basic structure of the town and delineated strategic communities around which traffic patterns were designed.

The determining role of the roads programme is a distinctive characteristic of the Kelso proposals. Traffic flows are first considered, improvements, widening and new roads are next planned to establish new vehicular patterns, then reconstruction of old sections of the town and construction of new estates are scheduled, the desired relationship to traffic flows having been established. At the same time pedestrian movement is provided for with care, separated wherever possible from road traffic.

Housing

Housing estates to accommodate the anticipated population growth were planned principally in the north and east of the burgh. Once again the principle of road separation of the environmental area to identify and define it, was proposed. Broomlands Estate was designed to include 750 dwellings, an infant and a primary school, a community centre, recreation areas, playing fields and play grounds and a few shops. A pedestrian system through the estate was to be connected to the system for the rest of the town.

Although much of the estate housing was to be local authority provided, significant portions were set aside for private develop-

¹⁰Ibid. para. 17.

ment. The Working Party anticipated that by 1975 the demand for home ownership would have increased markedly in step with increasing¹¹ prosperity in the expanding town.

Economic Base

Kelso's location and its function as a market town with a small industrial base, had determined that an unusually high proportion of its workforce was employed in the service sector. A comparison with its four closest major burghs showed that in 1965 Kelso had a higher percentage (65%) of service workers than Galashiels (57%), Hawick (36%) or Jedburgh (53%), but a lower percentage than Berwick (70%).¹²

Hosiery and agricultural machinery were the two principal employers in the secondary sector and neither was a large employer. Manufacturing employed only 30% of the workforce of the town and one in four of these travelled to a factory in Hawick to work.¹³

Dependence on service trade drawn from a shrinking rural hinter-land suggested a bleak economic future for Kelso. To ensure its employment base for the future a radical alteration of its economic character was required, industry had to be attracted and a larger local market had to be created. The recommendations of the Technical Working Party recognized these requirements.

¹¹Ibid. para. 48.

¹²Ibid. para. 52.

¹³Ibid. paras. 49, 50, 51, 52.

Industrial Siting

The Working Party determined that to accommodate sufficient new industry to employ all the workers in a 4,000 person increase in population would require approximately 30 acres of industrial land.¹⁴ Because the calculation was necessarily inexact, a site was chosen south of the Tweed and south of the railway which would permit maximum flexibility. The relationship of this site to the proposed road pattern was another important element in its selection. The site was divided into parcels of 10, 20 and 16 acres and a plan set out to develop the parcels in successive stages.

Tourism and Recreation

One industry which was little considered by the people of Kelso until recently, is the tourist industry. It was not until a study by the Geography Department of the University of Edinburgh revealed that some trades derived up to 20% of their turnover from tourism¹⁵ that the potential of this industry was appreciated. Kelso's history, climate and natural setting combine to make tourism, potentially, a major source of employment for the town. River angling, along the Teviot and the Tweed, the finest salmon runs in the country, and in waters renowned for trout fishing, may be enjoyed ten months of the year, from February to November. Accommodation facilities are adequate and in a few cases, such as the Georgian Mansion hotels, exceptional. For those of lesser means, caravan parks, Springwood Park for example, are available. There is much to offer the tourist already, but far greater benefit may be derived from this fledgling industry.

¹⁴Ibid. para. 54.

¹⁵Ibid. para. 58.

The range of recreational opportunities open to residents and visitors to Kelso is remarkable. There are a racecourse, a golf course, a senior rugby ground, an indoor ice rink, facilities for football, cricket and bowling and some of the most beautiful walks in Britain. Despite this profusion the Working Party considered an additional 50 acres of open space should be set aside for recreational purposes and new indoor and outdoor facilities should be provided for the additional 4,000 new residents expected.¹⁶ Enjoyment of leisure is an important element of the lifestyle of the people of Kelso.

Pedestrian Ways

The importance attached to pedestrian walks reflects another element of the Kelso lifestyle. It is important to the townspeople that they be able to go anywhere in town on foot, conveniently, in safety and along pleasant open footways, to work, to shops, to school, to recreation. The Working Party took care, therefore, to provide for pedestrian segregation. In addition to the pedestrian walkways, the central shopping and business section was planned as a pedestrian precinct in which vehicular prohibition would extend as successive stages of redevelopment were achieved and the Kelso Bridge was slated to be relegated, in time, to a magnificent footbridge.¹⁷ The extent to which the convenience and enjoyment of the pedestrian was considered, in a redevelopment plan for an existing burgh of great antiquity, is remarkable.

¹⁶Ibid. para. 59.

¹⁷Ibid. para. 61.

Landscape and Preservation

Kelso has long been recognised as a beauty spot both for its natural setting and its architecture. Much of the area has been defined as of Great Landscape and Historic value, part of its woodland is subject to a Tree Preservation Order, many of its buildings are included among the Scottish Development Department's Buildings of Special Architectural or Historical Interest and Kelso Bridge and the Abbey are designated as Ancient Monuments. It is noteworthy that the Working Party questioned none of the restrictions to development imposed by these listings for the sake of economic expedience. Rather they proposed a ban on development to the west of the town¹⁸ to prevent any encroachment on the lovely land between the Rivers Teviot and Tweed, and they advocated opening areas by the demolition of buildings in order to improve the view of their designated landmarks.

Education

The Working Party saw Kelso as a mini-centre for education and recreation for the burgh and surrounding communities. Their projections took into consideration expected growth in the burgh and within the catchment area, extension of the educational programme to include an infant school for five and six-year-olds and retention of secondary pupils by the raising of the school leaving age, and the generous provision of playing fields required by the Scottish Education Department. A two stage scheme was set out, the first for the period 1967 to 1970 and the second from 1970-1980. The objectives of the first stage were to replace the two primary schools at Abbey Row and Inch Road with a single two-stream unit, to build

¹⁸Ibid. para. 62.

a small new Infant School at Maxwelllough and to add sufficient facilities to Kelso High School to accommodate pupils retained by the raising of the school leaving age. During the second stage a new Infant and Primary School for 560 pupils was to be built for the expected population growth in the Broomlands subdivision.¹⁹

Of greater interest than the building plans, is the planning philosophy which underlies the proposals of the Working Party. Catchment areas of the schools were defined, school areas were enlarged and specified, parklands, including the revered Poynder Park Rugby Field, were assigned to school area status and the objective of coherent residential units complete with their own educational and recreational facilities was articulated.

Summary

The Report of the Working Party accepts the need to expand the economic base of the town and to enhance the town's function as a regional centre. It proposes that the population be doubled to 8,000 to enable it to fulfil this enlarged role. At the same time it stresses the importance of preserving the natural and architectural beauty which has made it famous and a delightful environment in which to live. The proposals establish a basis for accommodation between the two contradictory objectives. The result is an idealistic plan for development and redevelopment. New industry and new housing are sited in separate suburbs. A redeveloped core is proposed with a mix of business, industry and housing in which vehicular and pedestrian traffic are separated so that both are more

¹⁹Ibid. paras. 65-72.

convenient, historical edifices are preserved and given greater prominence, and in which day to day living is more enjoyable. A townscape is projected in which educational and recreational facilities are basic to the design. In sum, a plan is proposed that preserves the best of the past while setting out a design for efficient redevelopment and expansion to accommodate to modern conditions.

Burgh of Kelso: Policy Statement²⁰

The Report of the Technical Working Party for Kelso was submitted to Roxburgh County Council and Kelso Town Council in March of 1967 and was approved in principle by both Councils. Subsequently the Planning Department of the county prepared a policy statement based on the report and this was published in January of 1971. A revised statement was published in February of 1972.

The Working Party Report highlighted two interdependent factors that threatened the economy of Kelso, depopulation of the town and its hinterland and an unhealthy employment base with more than twice as many employed in service industries as in manufacturing. To ensure future prosperity, the report concluded that the population would have to be doubled to 8,000 by 1985 and secondary industry would have to be attracted to the town. The 1971 Census put the burgh population at 4,915, up 915 from 1966. Thus, in the first five years of the twenty-year projection the increase in population was close to one quarter of the anticipated rise and the planners had reason to feel they were reasonably on target.

²⁰ Roxburgh County Council Planning Department, Burgh of Kelso: Policy Statement (Revised). County Offices, Newtown St. Boswells, February, 1972.

In addition, considerable success had been realized in the attraction of industry. Between the completion of the Working Party Report in 1967 and the publishing of the Revised Policy Statement in 1972, eight new industries had located in the Pinnaclehill Industrial Estate. Together they employed about 400 persons and their production represented the sought-after diversification of the employment base.²¹ Their products ranged through tool making, switchgear, sports equipment, knitwear, concrete slabs and polypropelene tanks to electronics. On this the second fundamental objective, the record was again impressive.

Throughout the Borders the shortage of suitable housing in the burghs for incoming workers, has been a persistent thorn in the side of development officers. Kelso met their objectives. The Kelso Working Party Report projected the number of new housing units required to 1970 as 310 in the council's housing programme and 40-50 in the private housing market. By September of 1970, 312 units had been completed in the former programme and 65 in the latter.²²

The 1972 revision to the policy statement did not depart in a major way from the previous statement nor from the Working Party Report. It modified the restrictions on new commercial development in the downtown core, made accommodations to the unexpectedly rapid increase in vehicular traffic and the need for parking space in the vicinity of the square, and clarified the planning authority's resolve to direct industrial additions to the Maxwellheugh area. And it set out development standards for residential and industrial

²¹Ibid. p. 11.

²²Ibid. p. 9.

areas. But no changes were made in the basic proposals. The population goal remained as before; the environmental concerns were unchanged; the educational and recreational targets were kept²⁶, and the determination to preserve the history and beauty in their architecture was reaffirmed.

Earlston: Population and Employment²³

The Earlston study is different. It records no unemployment problem; it advocates no rapid increase in population; it seeks no major housing developments; it does not encourage the location of any major industry within the parish. The study reveals a fully employed workforce, but an unstable one. Earlston's problem lies in the stabilizing of its employment base, not in augmenting it.

Population

Differences between the experiences of Earlston parish and other Borders' settlements are apparent from even a casual glance at the various censi since 1861. Although the population for Scotland has risen steadily, the population of Berwickshire has steadily fallen. Earlston has risen and fallen by turns and had in 1961 almost the same number that it had 100 years before (see Table Fl). Earlston does reflect the main population characteristics of other Borders' towns and villages except that it had, in 1971, a disproportionate number of males in the 15-24 age range, the age

²⁶The new primary school at Inch Road with accommodation for 610 pupils, including a department for mentally handicapped children was opened in November of 1970.

²³Berwick County Council, Planning and Development Committee, Earlston: Population and Employment. Report of the Planning and Development Officer, County Offices, Duns, July, 1971.

of migration for young men in the Borders,²⁴ and an unusually high proportion in the retired age group. About one fifth of the population were 65 or over.²⁵ This latter statistic is reflected in the economically active figure for Earlston, just 57% in 1971.²⁶

Table F1

Population Trends for Scotland, Berwickshire and Earlston Parish

Year	Scotland	Berwickshire	Earlston Parish
1861	3,062,294	36,613	1,852
1871	3,360,018	36,486	1,977
1881	3,735,573	35,392	1,767
1891	4,025,647	32,406	1,784
1901	4,472,103	30,824	1,677
1911	4,760,904	29,643	1,749
1921	4,882,497	28,246	1,643
1931	4,842,980	26,612	1,689
1951	5,096,415	25,068	1,761
1961	5,178,490	22,437	1,831

Source: Berwick County Council, Planning and Development Committee, Earlston: Population and Employment Report of the Planning and Development Officer, County Offices, Duns, July, 1971, p. 2.

Employment Base

Another major difference between the employment pattern in Earlston and those in other Border communities is found in the proportion of workers who commute to work outside the village. For Earlston the figure is 52%.²⁷ This statistic reveals the major

²⁴Ibid. Fig. 1.

²⁵Ibid. p. 2.

²⁶Ibid.

²⁷Ibid.

weakness in the village economy. Economic survival is dependent on employment conditions elsewhere in the region and upon the willingness of over half the workforce to remain resident in Earlston while travelling daily to and from a distant place of work. Additional home-based industry to employ a portion of the commuting workers would provide a measure of security to the community, but it was the conclusion of the Planning Committee that Earlston would continue to be dependent on the prosperity of the Border's Region as a whole.

As textile manufacturing is a major employer throughout the Borders, so it is in Earlston, but only 15.8% of the village workers are so employed, and, surprisingly, over half of the textile employees are male. Engineering and electrical goods provide the only other manufacturing jobs and they employ less than half of one per cent of the labour force. Secondary sector employment accounts for just 16.2% of all employment.²⁸

Construction employs the largest segment of Earlston's workers, 22.8%²⁹, almost three times the Borders' average (see Table LIV, Chapter 3). Construction employment grew during the extensive local authority building programme at Summerfield. When that project was completed, tradesmen in this sector had to find work elsewhere, in some cases as far away as Edinburgh. For many, the Tweedbank development should provide a closer alternative.

²⁸Ibid. p. 3.

²⁹Ibid.

Distributive Trades and Miscellaneous are the only other industrial classifications accounting for more than 10% of employment in Earlston (see Table F2). They contributed 15.0% and 12.3% of jobs in 1971.³⁰ Because of the proximity of Galashiels and its larger market, there is little likelihood of any substantial growth in these sectors. Indeed, many of those employed in distributive trades already commute to work in Melrose, Selkirk and Galashiels.³¹ Any change in these sectors is more likely to be a reduction in the numbers employed.

The Planning and Development Committee concluded that there were no growth industries in Earlston.³² They also determined that, without major expenditures for water supply and other services, there was no spare capacity in village facilities to accept more than a marginal increase in population.³³ Clearly, this also limits the size and nature of any incoming industry. However, since there is no visible unemployed pool of labour (although a hidden female labour supply may exist), the committee approved the designation in "A Rural Policy for Berwickshire" as an "A" village and as a minor "growth point" in the county.³⁴

³⁰Ibid.

³¹Ibid. p. 6.

³²Ibid. p. 8.

³³Ibid. p. 9.

³⁴Ibid.

Table F2

Employment Structure of Earlston, 1971

Industrial Order (Standard Industrial Classification)	% of total workforce		
	Male	Female	Total
<u>Primary</u>			
Agriculture	2.1	-	2.1
Forestry	4.0	-	4.0
Mining and Quarrying	3.9	-	3.9
Total Primary	10.0	-	10.0
<u>Secondary</u>			
Engineering and Electrical Goods	0.4	-	0.4
Textiles	8.3	7.5	15.8
Total Manufacturing	8.7	7.5	16.2
<u>Tertiary</u>			
Transport and Communications	8.9	0.8	9.7
Distributive Trades	7.5	7.5	15.0
Insurance, Banking and Finance	1.6	3.1	4.7
Profession and Scientific Services	2.2	4.8	7.0
Miscellaneous	6.6	5.7	12.3
Public Administration and Defence	2.3	-	2.3
Total Services	29.1	21.9	51.0
Grand Total	70.6	29.4	100.0

Source: Berwick County Council, Planning and Development Committee, Earlston: Population and Employment. Report of the Planning and Development Officer, County Offices, Duns, July, 1971.

Hawick: A Plan for Development³⁵

A Technical Working Party was set up to carry out a full technical appraisal of the threshold capacity of existing Hawick facilities, in January, 1969, following a meeting between Dr. J. Dickson Mabon, Minister of State, and representatives of the local authorities involved in the Central Borders Plan.

The Working Party was assigned the following terms of reference:

(a) "For immediate Study and Interim Report to the Minister of State to assess the general prospects for growth and development related to the existing structure and facilities of the Burgh."

(b) "For a continuing study to complete the survey of the Burgh in depth and to ascertain the possibilities for urban and industrial growth which would facilitate a comprehensive review of the Development Plan by the Local Planning Authority."³⁶

In 1970, the publication "Hawick into the Seventies" was released as the Interim Report setting out the Working Party's proposals with respect to part (a) of their remit. The three main recommendations of the Interim Report were:

1. That the service infrastructure of Hawick is sufficient, without major new commitments, to accommodate an additional population of 2,500 to 3,000, that improved employment prospects warrant this growth and that plans should be prepared to provide the industrial, educational and social facilities the new population will require.

³⁵The Hawick Working Party, Hawick: A Plan for Development. Roxburgh County Council and Hawick Town Council, Tweeddale Press, Hawick, 1973.

³⁶Ibid. p. 1.

2. That plans should be prepared to add, by 1975, 836 new houses, principally in the Mayfield and Stirches areas and 300 replacement houses, principally in the central area, and that a review procedure be established to phase this provision, commensurate with the progressive expansion of the employment base.

3. That new industrial sites should be developed as required, for larger units, in the Burnfoot area, and for smaller ones, in the built up area, preferably on the north side of the Teviot.³⁷

Proposals relating to part (b) of the terms of reference are the subject of "Hawick: A Plan for Development".

Historical Background to the Population and Employment Problem

The history of Hawick for a hundred and seventy years parallels the history of the Borders Region, despite the fact that Hawick may be said to have developed in virtual isolation. During the second half of the nineteenth century Hawick's population growth was faster than Scotland's as it thrived on the strength of one branch of a single industry, knitwear, even as the Borders too grew on a narrow band of textile manufacturing (see Figure F1). By 1891 Hawick and the Borders had reached their zeniths of population growth and prosperity. From 1891 to the mid-1960's both the town and the region declined on both indexes. As the decline continued, younger workers, particularly the young men, left in search of employment, the population became overbalanced to the elderly and the female, birth rates fell and death rates climbed. Dependence on a narrow economic base limited the opportunities for new initiatives for town

³⁷Ibid.

Figure F1
Employment by Sectors, Hawick and Scotland, 1971

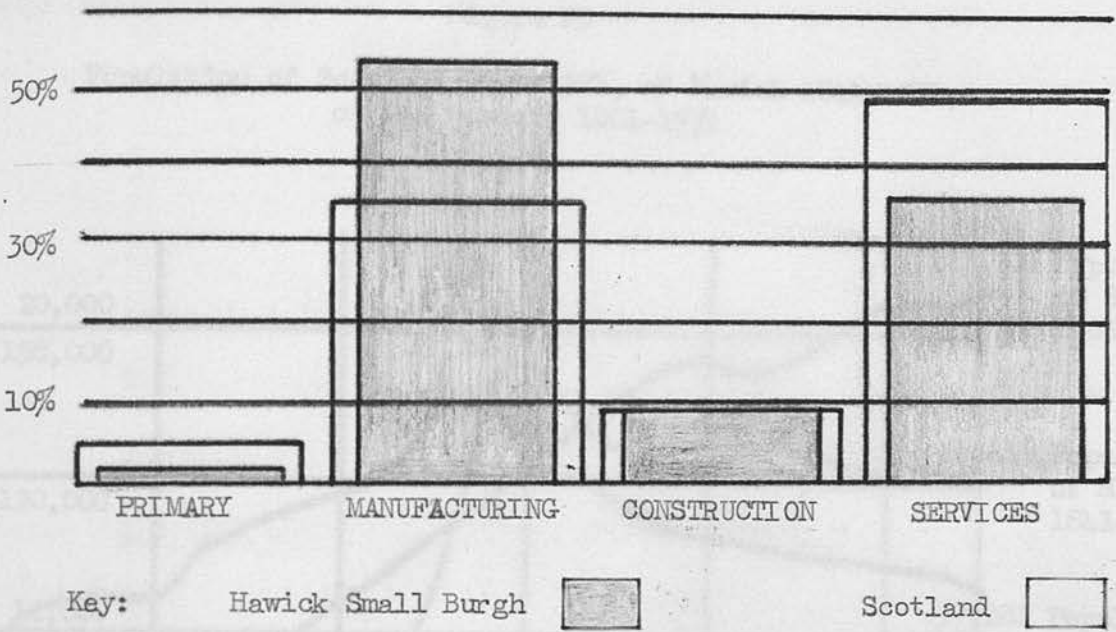
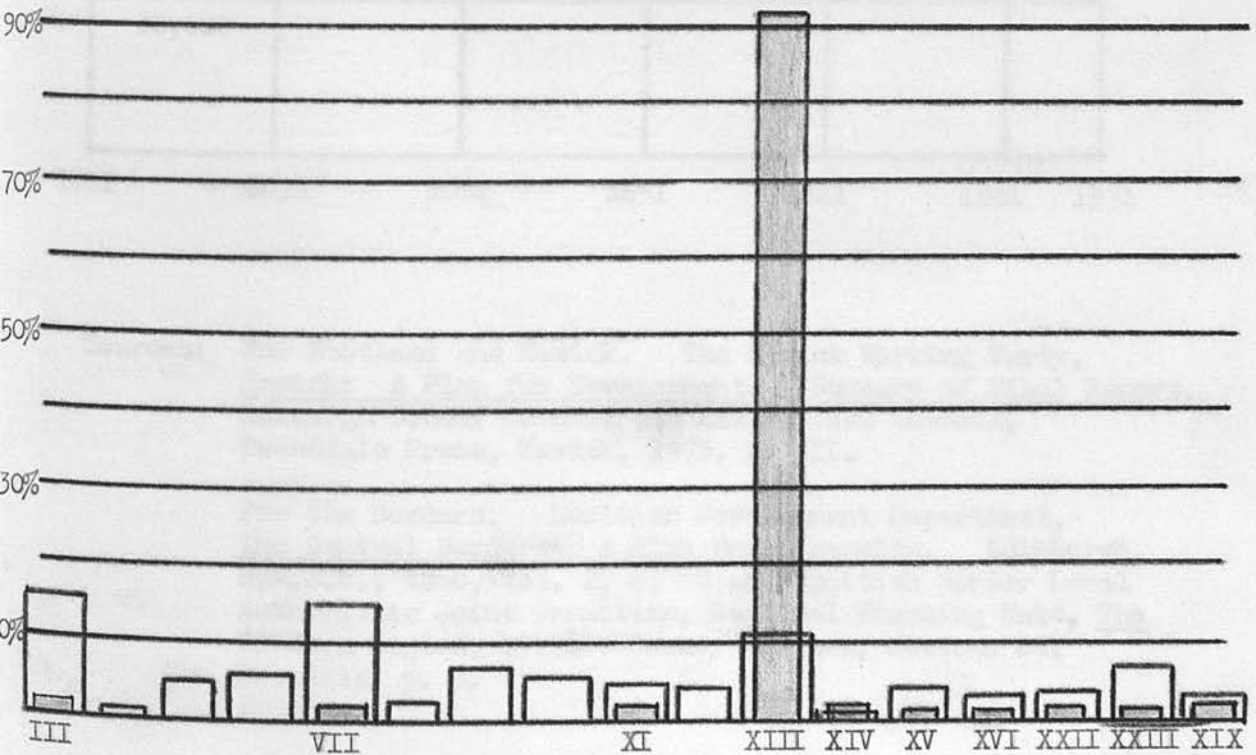


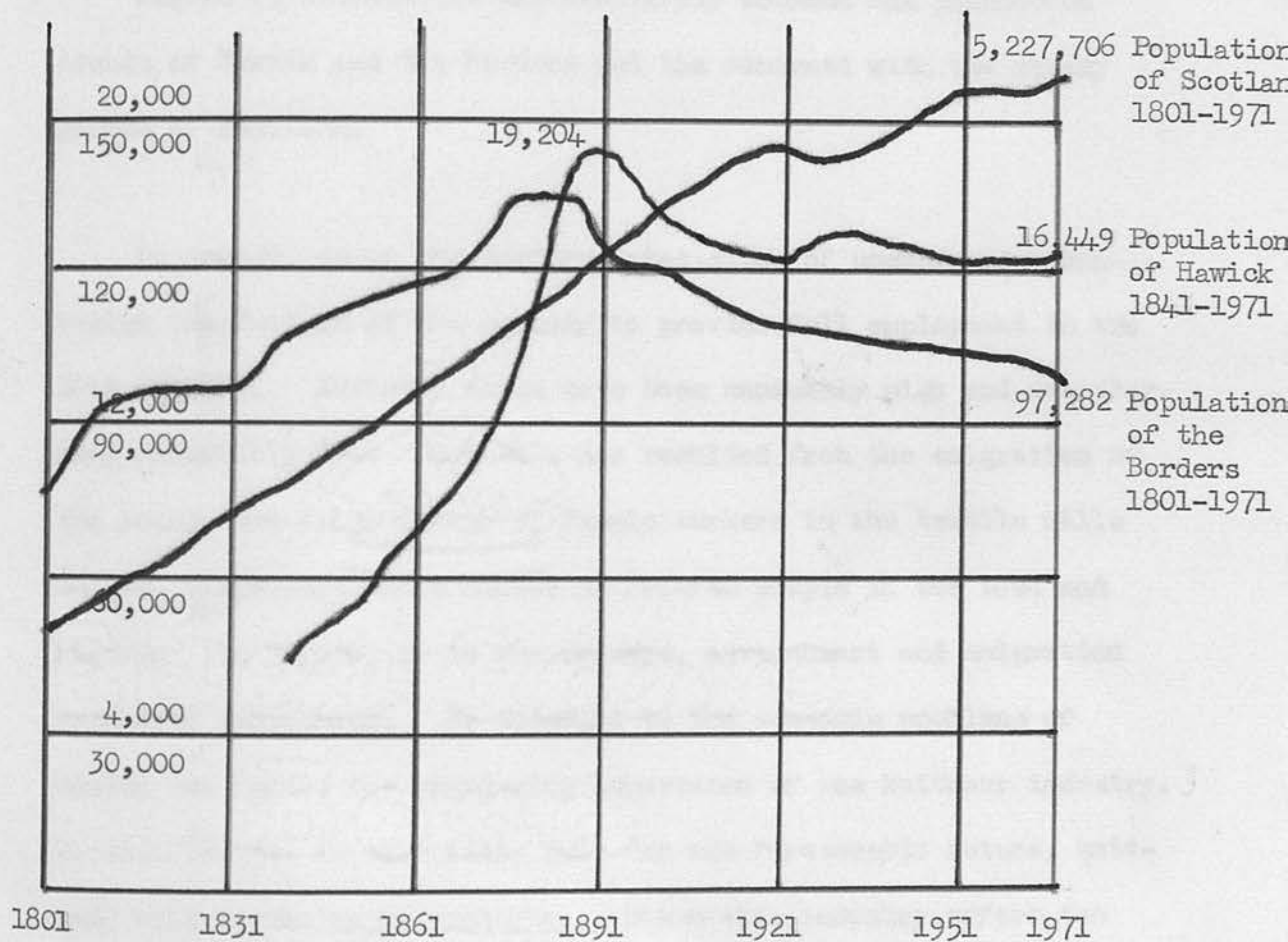
Figure F2
Employment in Manufacturing Industry, Hawick and Scotland, 1971



Source: F1 and F2:
The Hawick Working Party, Hawick: A Plan for Development.
Roxburgh County Council and Hawick Town Council, Tweeddale
Press, Hawick 1973, p. VIII.

Figure F3

Population of Scotland 1801-1971, of Hawick 1841-1971,
of the Borders 1801-1971



Sources: For Scotland and Hawick. The Hawick Working Party, Hawick: A Plan for Development. Summary of Final Report. Roxburgh County Council and Hawick Town Council, Tweeddale Press, Hawick, 1973, p. VII.

For the Borders. Scottish Development Department, The Central Borders: A Plan for Expansion. Edinburgh, H.M.S.O., 1968, Vol. 2, p. 68 and Scottish Border Local Authorities Joint Committee, Regional Planning Unit, The Borders Region, 1975. County Offices, Newtown St. Boswells, p. 3.

and region. As agriculture mechanized and rationalized, as the textile industry languished, Hawick and the Borders lost too many of their young to greener fields and the declines continued. Meanwhile, Scotland as a whole, continued to grow.

Figure F3 illustrates the similarity between the population trends of Hawick and the Borders and the contrast with the steady growth of Scotland.

In Hawick, as in the Borders, statistics of unemployment concealed the failure of the economy to provide full employment in the 20th century. Activity rates have been unusually high and unemployment remarkably low. But this has resulted from the emigration of the young, the large number of female workers in the textile mills and the disproportionate number of retired people in the town and region. In Hawick, as in the Borders, advancement and emigration have been synonymous. No solution to the economic problems of Hawick can ignore the continuing importance of the knitwear industry. Diversification is essential, but, for the foreseeable future, knitwear will be the major employer. Since this industry offers too little opportunity for the young and is a low wage industry, plans for the future of Hawick must include proposals to overcome these deficiencies.

The Working Party set out five aims for their plan:

- Aim A: The plan should achieve a further widening and a greater range of opportunity in the local employment base.
- Aim B: The plan should permit a growth in population with a view to accommodating a higher proportion of younger people.

- Aim C: The plan should balance the employment and population aspects with an appropriate emphasis on welfare and social development.
- Aim D: The plan should be designed to achieve the highest living and working standards.
- Aim E: The plan should ensure that the communications system minimises conflict between its users and the environment.³⁸

In these five aims may be seen again the themes which consistently underscore each of the Border strategies, diversification of employment, attraction of new, young workers, retention of the best of the past and improvement of the present, in both social and environmental terms. Retention of the best of the past is, however, a different task in Hawick than in Jedburgh or Kelso. Hawick was a small town of 6,000 in 1841 which boomed to 19,200 with the expansion of coal powered hosiery mills, in a brief half century.³⁹ It experienced all the bad effects of rapid industrialization and much of the congestion, bad land use and poor communications remain to plague 20th century planners.

Relationship of the Hawick Plan to Existing Plans

The 1973 Plan for Development is consistent with earlier policy determinations set out in the Regional Plan for Central and South-East Scotland, 1948, the Roxburgh County Development Plan, 1961, the 1966 White Paper, "The Scottish Economy, 1965-70", and the Central Borders Plan of 1968. Urban expansion was omitted in the earlier proposals and the view was accepted that most of the existing population would remain in the burghs, but regional

³⁸Ibid. pp. 2, 4.

³⁹Ibid. p. 3.

depopulation was identified as a major threat and problems were recognised as regional in their effect and in terms of their solution.

The County Plan saw the need to improve the roads network and improve housing, but put forward no plans for town expansion. The White Paper included two major new assessments, that rural depopulation was the result of increasing farm mechanisation and that the local knitwear industry was no longer capable of employing sufficient numbers to ensure population stability. It argued for a population increase of 25,000 people into the Border towns by 1980 to redress the damage done to the economy of the region and to provide the stock of workers and the market necessary for industrial recovery.

The Central Borders Plan allocated the 25,000 growth to the various burghs of the three counties according to a system of "threshold analyses", by which the population increase a given town could absorb without major new services, was calculated. By this method Hawick was allotted an increase of about 1,700 up to 1980, then a further 7,000 after water supply and sewerage extensions were completed. Hawick Town Council maintained that they had already overcome the threshold restraints and that existing towns should be given a larger role in the early stages of the Central Borders strategy. The Scottish Development Department agreed and the Hawick Working Party was established to prepare a plan for development for the town consistent with the population distribution proposals in the White Paper.

Technical Studies

Technical studies were undertaken in a number of areas critical to development strategy. The population studies were concerned with the relationship between employment prospects and a balanced population. Since the Interim Report had stated Hawick needed, and could accommodate, an additional 4,900 people, this was the starting point of the enquiry.

Population

Examination of the 1951, 1961, 1966 and 1971 censi showed that there had been a net loss of population between 1951 and 1971, but that a low point had been reached about 1963 and a slow recovery had occurred between 1964 and 1971.⁴⁰ During the 20 year period the surplus of births over deaths had been about 205, but the loss due to emigration had far exceeded this gain. To achieve the increase in population, it was estimated that an inflow of 160 per year combined with natural increase would result in a cumulative gain of 4,500 by 1992.⁴¹

Population and Housing

To establish and sustain population growth in Hawick, young men and women in the child-bearing period of life must be encouraged to come to or to stay in the town, an unlikely event if housing is not available. A five year programme was initiated in 1969 with a target of 914 new local authority houses plus private dwellings. By the end of 1973 about 660 houses were either completed or were

⁴⁰Ibid. p. 9.

⁴¹Ibid.

under construction. Approximately 300 of these were allocated to population increase.⁴² Sufficient land was prepared for housing, added to the land reserve or designated for future housing use, to allow for 1,925 new dwellings. Thus despite a projected loss of 700 derelict dwellings in the central area, adequate housing sites were available to meet the target increase.

Employment Projections

Three projections were made to estimate the ability of the town economy to absorb a projected labour force. The first was based on the assumption that existing forces within the local economy and population structure would exert similar effects through 1981 and employment changes would be consistent with Department of Employment estimates. This "low" estimate envisaged a slight increase in population through natural increase, a reduction in male and female activity rates, average local unemployment rates and a net increase in travel to work in the burgh. The projection indicated a reduction in employment in the manufacturing sector, an increase in the service sector and relative stability in the primary sector. It demonstrated that the existing industrial base was capable of maintaining the town's economy if no large inward migration occurred.

The second, or "medium" estimate, was built on a survey of existing (1972) manufacturers in the burgh which suggested that 310 more workers would be required for the expansion of present businesses over the period 1972-1977. The planned attraction of 160 net inward migrants per year was calculated to result in 360

⁴²Ibid. p. 10.

new workers by 1977. According to the medium estimate the manufacturing sector alone would be able to absorb most of them.⁴³

A "high" estimate, based on the assumption that the town's population would increase up to the limit of the existing services and topographical thresholds, extrapolated a gross labour force of 10,960 by 1992. It concluded that 2,640 new jobs would have to be created and that approximately half of these would require new locations.⁴⁴

New Industrial Sites

Land requirements of any industry are related to the nature of the industry. To broaden the economic base and to enlarge the male proportion of the workforce in Hawick, it was desirable to attract engineering, machinery, scientific and technological industries. Thus the projections of land needed for the new manufacturers was based on industries of this nature.

Of the 1,050 new jobs foreseen in the service sector, 250 were expected to be in the retail market and 275 in the surrounding rural area.⁴⁵ The Working Party expected that by 1992 another 1,000 pupils, 700 in primary and 300 in secondary classes would be added by the planned house building programme. Another 350 primary places would be needed to replace obsolete accommodation at Burnfoot Annex and Wilton School and the relocation at the new Wilton School of the

⁴³Ibid. p. 14.

⁴⁴Ibid. p. 15.

⁴⁵Ibid. p. 17.

students of Anderson Special School and Junior Occupational Centre. When anticipated population increases from all sources were considered, a primary enrolment of 2,810 and a secondary enrolment of 1,860 was predicted.⁴⁶

It was expected that the new Stirches housing area eventually would attain a size sufficient to justify the construction of a two-stream primary school and that the comparative isolation of the Crumhaughhill housing estate would warrant the building of a single-stream school there. The sub-standard annex at Burnfoot was dismissed as unfit. The Working Party proposed that it be replaced by a new single-stream school which should have sufficient capacity to take pupils from the new housing to be built at Burnhead and Coille.

At the time of the report Hawick High School was catering to an enrolment larger than its capacity. An extension to the building had already been planned on ground extending into Buccleuch Park. A further extension would be required by 1992 to accommodate the almost 1,900 pupils projected for that year. The Working Party suggested that an alternative to enlargement of the existing school would be to construct a new Junior High School for approximately 700 pupils on a new site and to utilise Hawick High School as a senior high school only. They recommended the Auction Mart as the best site for the new school despite the difficulties this displacement would present, because it is close to the senior school and a school precinct is more in accord with desired land use in the town centre. The problem of playing field provision for the new school was not resolved.⁴⁷

⁴⁶Ibid.

⁴⁷Ibid. p. 18.

Hawick had no formal pre-school classes in 1972. The Education Committee recognised that they were not meeting an educational and social need that was escalating rapidly and they planned two initiatives for the near future which the Working Party included in their report. As soon as the new Stirches and Wilton Primary Schools were completed, the existing Wilton buildings were to be converted into a nursery school and a new unit was to be built at Burnfoot in 1974. A third school was proposed for Burnflat when required.

No mention is made of further education, adult or community education in the report other than to reiterate the inclusion in recommendation 3 of the Interim Report that secondary education should be allied with the development of a new educational and recreational complex combining school and community use.

Social Services

Medical and social care, at the time of the report, was a shared responsibility, public health and social work coming under the umbrella of the Roxburgh County Council, general medical practice under the National Executive Council and hospital services under the Regional Hospital Board. Although good co-operation existed between the three responsible authorities and those delivering the services it was felt that combining the offices of medical and dental practitioners, social workers and Children's Panel Hearings would provide a degree of co-ordination not achieved thus far.

The three-level programme of the Roxburgh County Council for care of the elderly was endorsed by the Working Party: Eventide Homes for those needing full-time supervision, Sheltered Housing

for the partly self-reliant, and home help or meals on wheels from time to time for those able to stay in family homes. Sheltered Housing, the cheaper and freer form of residential care was to be the mainstay of the programme, providing eventually for 5% of the population over 65.⁴⁸

The three hospitals in Hawick, Drumlanrig, a 48 bed geriatric hospital, the 30 bed Cottage Hospital for general care and the Haig Hospital with 13 maternity beds were considered adequate provided the new Regional Hospital proposed for Melrose was completed without delay. In the meantime the town would continue to rely for specialist services on Peel Hospital and for psychiatric services on Dingleton.

Leisure and Recreation

All Border towns are blessed with beautiful, natural surroundings for the enjoyment of walking, horse riding, fishing, canoeing and frequently sailing. The abundance of historic buildings and sites afford cultural and scenic enjoyment. Hawick is no exception. There is much in the town and nearby countryside to be enjoyed throughout the year.

Sports fields, on the other hand, although amounting to 1.0 hectares (2.5 acres)⁴⁹ per 1,000 population, were overtaxed in 1972 because they were shared by the school authority and the public. New grounds were suggested at Martin's Bridge, in the new housing areas, and by clearance and landscape treatment along the Teviot.

⁴⁸Ibid. p. 19.

⁴⁹Ibid.

Hawick's major recreational deficiency lay in its shortage of indoor facilities. It had no adequate community sports hall and its swimming pool was obsolete. After consultation with the Town Council, the Local Education Authority and the Scottish Council for Physical Recreation, agreement was reached for the construction of a Sports Hall and a 33 metre pool on the former railway station yard.⁵⁰ That a town of 16,000 should plan a swimming pool and sports complex on this magnitude is a tribute to their high regard for community recreation.

Road Communications

The tripling of its population between 1841 and 1891 left a legacy of poor construction and bad land use in Hawick which makes the job of rerouting traffic to avoid High Street more difficult than in other Border towns. The north-south trunk road, the A7, runs through the town centre, through High Street. Entrance to High Street is via the Drumlanrig Bridge which should be rebuilt and widened to carry the increased traffic of the 1980's, but rebuilding and realigning the bridge on this scale would necessitate extensive demolition of neighbouring buildings. The use of High Street as the major cross-town route, as the principal shopping street and for short term parking and unloading makes it imperative that the street be widened or that it become a pedestrian priority area or that an alternative through route be found to bypass the town centre. Widening of the street would destroy much that is architecturally valued, would expose buildings behind that are not and would be far too costly. A pedestrian precinct is not possible unless an alternative route is provided, rear access delivery is arranged for and

⁵⁰Ibid. p. 20.

off street parking with adequate pedestrian communication is constructed. Pedestrian priority on the other hand, does not involve a ban on vehicular traffic, but traffic management.

The solution proposed for Hawick is a compromise. The results of a traffic survey conducted in August, 1970, confirmed that present and forecast traffic flow did not justify a complete town by-pass.⁵¹ Thus constrained, solutions were sought by the study group within the framework of the existing road system. Traffic management provided an immediate means to alleviate the congestion and to control the situation until 1980. Recommendations included a ban on parking in High Street, construction of off-street car parks, the channelling of moving traffic away from footways and the establishment of loading bays at selected points. As a caveat, the Working Party accepted that only minor relief could be expected from these measures and in the event that they failed, no further attempt to extend traffic management procedures should be attempted, but recourse to the long term plan should be immediate.

The long term plan called for the minimising of traffic in High Street and the provision of alternative routes within the central area, a new bridge across the Teviot, widening and strengthening of Drumlanrig Bridge, improvements to approaches and possible redevelopment of Howegate. Nothing in the long term plan was considered final. Further studies were recommended on all aspects.

⁵¹Ibid. p. 21.

Services

The Interim Report recommended improvements to the water supply and sewage systems to prepare for an expansion in population and industry. It estimated per-capita costs for expansion would give better value than development of a new site. The Working Party evaluated the steps taken by statutory bodies to implement extensions to the water supply, drainage networks and sewage disposal. They considered the investments made and planned would provide satisfactory services at reasonable cost.⁵²

Landscape and Townscape Preservation

Among the many studies undertaken by the Working Party was an historical review of the growth of the town. Reasons for the pattern of development were ascertained and advantages deriving from it sorted out. From this information proposals were put forward to increase the amenity value of some areas, to preserve advantageous lines and contours and to restore historic buildings and facades. Their concern is summed up in the statement that "the policy should be to encourage the sensitive care of existing buildings, and to ensure that where changes become necessary it should respect the existing pattern of building."⁵³

A similar approach was taken to the setting of the town within its valley. Here, too, the approach was one of respect for the loveliness of their land and a determination not to permit its wanton exploitation whatever the apparent economic imperatives.

⁵²Ibid. pp. 27, 28.

⁵³Ibid. p. 30.

Rural Studies

County of Roxburgh, Landward Community Development Strategy⁵⁴

Despite the fact that the depopulation of the Borders which prompted the spate of studies in the 1950's and '60's was most serious in the rural areas, all the studies were burgh-centred until the 1970's. By this time it had become obvious that any regional or county plan would have to include a policy framework for rural development that considered the likely impact on the countryside of proposed urban growth. The approach of regional government under which urban and rural housing authorities would be unified, also spurred county councils to examine what had been occurring and what trends might be expected in rural areas to enable them to prepare policies to guide the regional planners.

The acceptance of the "Central Borders Plan" by Local Authorities (with some reservations), its general strategy and proposals for the distribution of new population, added to the pressures for rural studies. For despite its comprehensiveness in other areas, the Johnson-Marshall Plan had not analysed village community patterns. Thus, the Roxburgh County study was commissioned to supplement the regional analysis.

Some of the information in the Roxburgh report is surprising. Almost all of the larger villages (those with populations in excess of 50) had more occupied houses in 1970 than in 1960, although the opposite was true for the smaller villages. This expansion runs

⁵⁴Constable, F. S., County Planning Officer. County of Roxburgh: Landward Community Development Strategy. Council Offices, Newtown St. Boswells.

counter to the trend in the rural areas generally, but follows the pattern now so familiar in the burghs. Tables F3 and F4 strikingly illustrate the contrasts.

Of sixteen villages with 40 or more occupied houses in 1970, thirteen had expanded during the decade and in ten of these the expansion had been largely concentrated in the 1965-70 period. In seven the number of new households was ten percent or more of the 1961 total for the village. Of the seven villages with fewer than 40 occupied houses, five declined in the number of occupied houses and one remained the same. By contrast to the significant gains of the larger villages the losses among the smaller villages was less dramatic. One village lost 3%, two lost 5%, one 7%, one 11% and one gained 4%.

Within the county all four burghs increased in population during the 60's reversing the trend of the previous decade, while all four landward districts declined sharply.

As with the burghs, the growth of the larger villages is a hopeful sign in the face of long term regional depopulation. Village prosperity is the key to the future wellbeing of the countryside.

Depopulation has been far from consistent across the county. Upland parishes have lost far more since 1891 than lowland areas. Greater losses have been recorded in the south and east than in the north and west. This reflects the greater economic hardship of the hill farmers by comparison to farmers in the fertile valleys. More recently, however, the losses have been greatest in the arable

Table F3

Number of Occupied Houses in Roxburgh Villages 1960-70

	1960	1965	1970	Increases 1970 cp 1960	Increase 1970 cp 1965
Newtown St. Boswells	365	370	407	42 (12%)	37 (10%)
St. Boswells	378	393	403	25 (7%)	10 (3%)
Newcastleton	329	332	341	12 (4%)	9 (3%)
Denholm	212	212	233	21 (10%)	21 (10%)
Town Yetholm	154	156	166	12 (8%)	10 (6%)
Gattonside	115	118	128	12 (10%)	10 (8%)
Ancrum	113	108	114	1 (1%)	6 (6%)
Bowden	82	84	94	12 (15%)	10 (11%)
Morebattle	93	96	90	-	-
Lillieslief	87	86	86	-	-
Newstead	61	78	76	15 (25%)	-
Bonchester Bridge	46	47	55	9 (19%)	8 (17%)
Kirk Yetholm	54	54	55	1 (2%)	1 (2%)
Heiton	44	45	51	7 (16%)	6 (13%)
Stichill	39	41	40	1 (3%)	-
Ednam	42	41	40	-	-
Sprouston	38	39	36	-	-
Midlem	36	33	35	-	2 (6%)
Smailholm	28	28	26	-	-
Maxton	28	28	25	-	-
Roxburgh	23	21	24	-	3 (14%)
Chesters	19	18	19	-	-
Lanton	19	21	18	-	-

Source: Constable, F. S. County Planning Officer, County of Roxburgh: Landward Community Development Strategy. Council Offices, Newtown St. Boswells, p. 5.

Table F4.

Population Change in Roxburgh in Burghs and Landward Areas 1951-71

	Pop. 1951	Pop. 1961	Pop. 1971	% Change 1951-61	% Change 1961-71
Hawick S.B.	16,717	16,206	16,286	- 3%	+ $\frac{1}{2}$ %
Kelso S.B.	4,119	3,968	4,852	- $3\frac{1}{2}$ %	+22%
Jedburgh S.B.	4,084	3,645	3,874	-11%	+ 6%
Melrose S.B.	2,146	2,133	2,185	- $\frac{1}{2}$ %	+ $2\frac{1}{2}$ %
Hawick District	4,530	4,272	3,790	- $5\frac{1}{2}$ %	-11%
Kelso District	4,716	4,171	3,436	- $11\frac{1}{2}$ %	- $17\frac{1}{2}$ %
Jedburgh District	4,047	3,500	2,722	- $13\frac{1}{2}$ %	-22%
Melrose District	5,199	5,288	4,814	+ $1\frac{1}{2}$ %	- 9%
County Total	45,558	43,183	41,959	- 5%	- 3%

Source: Constable, F. S. County Planning Officer, County of Roxburgh: Landward Community Development Strategy. Council Offices, Newtown St. Boswells, p. 3.

parishes. And this trend is likely to accelerate. It is precisely the areas which have best held their populations heretofore that now have the oldest populations in the county. The fringe areas, having suffered rapid, massive depopulation, may be approaching the point of stabilization, while the intensive farming areas may yet have some way to go.

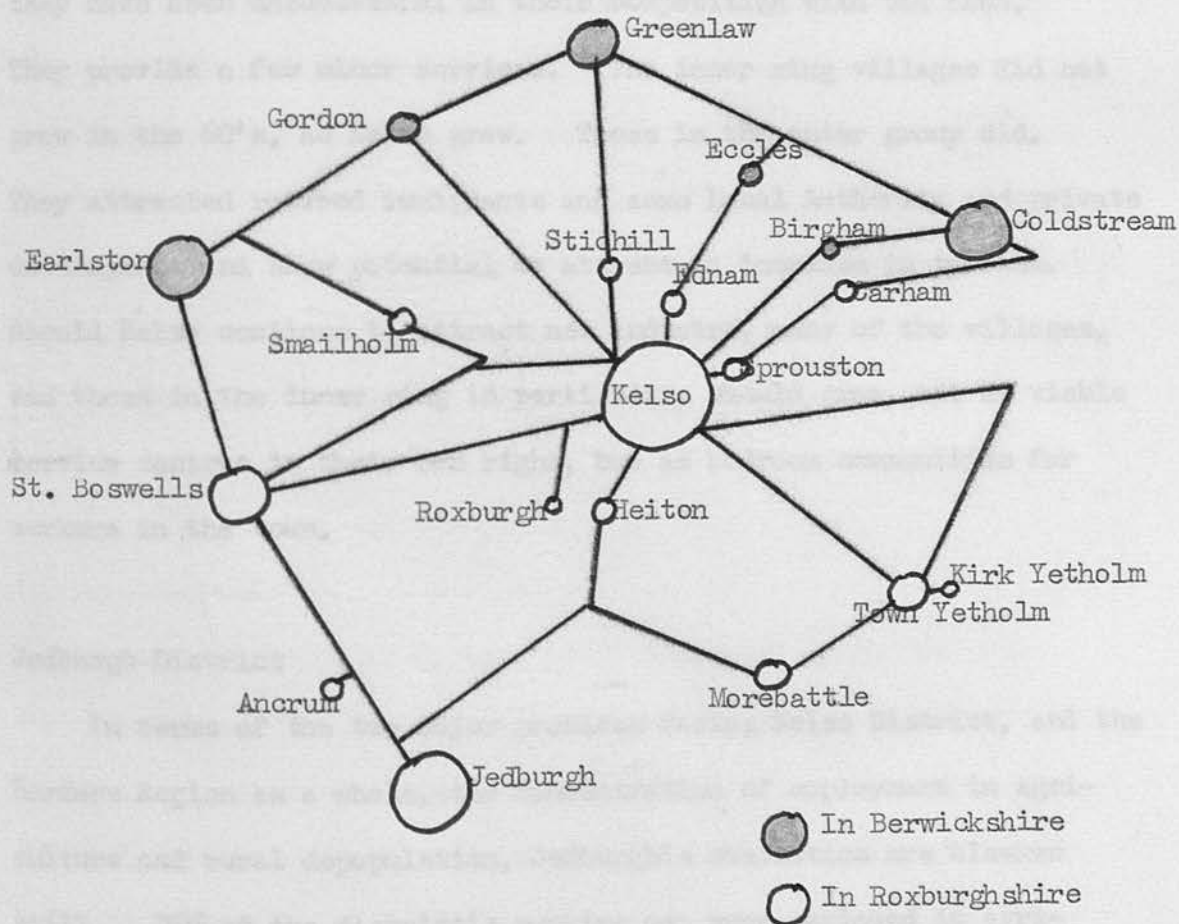
The Situation in Roxburgh in 1971

Kelso District

Table F4 reveals that Kelso town and district together, alone of the four divisions of the county, actually gained in population between 1961 and 1971. Kelso District suffered heavy depopulation, $17\frac{1}{2}$ %, or 735 persons, but the 22% gain in the burgh (884 persons), more than compensated for the rural loss. The exchange of population heralds a fundamental realignment of the economic

structure of the district. Agriculture employed 65% of the male population in 1966.⁵⁵ Kelso is a market and service centre for a clearly defined agricultural hinterland, but the number of customers in the hinterland is diminishing and the workforce of the town is increasing. A new relationship exists. New forms of employment must be established to absorb the new workers in the town and villages and to provide a new economic role for the town.

Figure F4.
Kelso and its Service Hinterland



Source: Constable, F. S., County Planning Officer, County of Roxburgh: Landward Community Development Strategy. County Offices, Newtown St. Boswells, p. 7.

⁵⁵Ibid. p. 7.

The pattern of settlement around Kelso might almost be a textbook example of hinterland growth around a service centre. As may be seen in Figure 4, roads radiate from Kelso like the spokes of a wheel. The rim, six to eight miles from the town, connects a circle of larger villages and the burghs of Coldstream, Jedburgh, St. Boswells and Earlston, all of which are far enough from Kelso to be secondary service centres themselves, (Jedburgh, of course, is more than a secondary centre). Closer to Kelso is another ring of villages, two to five miles away, smaller than the rim group because they have been unsuccessful in their competition with the town. They provide a few minor services. The inner ring villages did not grow in the 60's, as Kelso grew. Those in the outer group did. They attracted retired immigrants and some Local Authority and private development and show potential to attract an increase in tourism. Should Kelso continue to attract new industry, many of the villages, and those in the inner ring in particular, should grow, not as viable service centres in their own right, but as bedroom communities for workers in the town.

Jedburgh District

In terms of the two major problems facing Kelso District, and the Borders Region as a whole, the concentration of employment in agriculture and rural depopulation, Jedburgh's statistics are bleaker still. 76% of the district's working men were employed in agriculture in 1966 and between 1961 and 1971 the district lost 22% of its total population.⁵⁶

⁵⁶Ibid. p. 9.

In other respects the two districts are very different.

Development of a radiating road system like that of Kelso District was frustrated by the intrusion of the steep hills and long valleys characteristic of the upland areas that make up a large part of Jedburgh District. The upland settlements are little more than isolated hamlets. The lowland communities are seldom much larger and do not relate strongly to Jedburgh. All have suffered from the rapid decline of the district in recent years.

The Roxburgh study found few encouraging prospects for the future development of Jedburgh District. Forestry is gaining importance in the uplands, but will not provide many jobs for some years to come. Tourism, at least along the A68, is growing and has potential. The lowland parishes may attract commuters who find employment in surrounding burghs. Thus prosperity for the landward residents increasingly will depend on the economic health of the towns.

Hawick District

Hawick District is divided by an east-west range from the Cheviot Hills, into two distinct sections. Hawick, the most populous of the Border towns, lies in the northern section and dominates it, Denholm being the only village within its catchment with an employment base worthy of note. In the southern section attention focuses on Newcastleton, which, by virtue of its isolation, has had to function like a town. With the exception of Newcastleton, settlement in the southern part of the district is typified by the scattered clusters of housing found throughout Border's upland areas.

The dependence of landward districts on the towns is especially evident in the northern section of Hawick District. The mills of Hawick are the major source of employment for the whole catchment area, after agriculture, and even agriculture employed only 45% of all male workers in the district in 1966.⁵⁷ This dependence is reflected in the comparatively modest (by comparison to Kelso and Jedburgh Districts) loss of 11% of the district population in the 1961-71 intercensal period.⁵⁸

Even in the southern section many travel to Hawick to work. For the upland dwellers there is little else to do. The hand-loom weaving industry upon which Newcastleton built its reputation has passed into history, forestry provides employment for a few today and hope for more in the future, but there is no present employer of consequence and no sign of any on the horizon.

Melrose District

The fact that only 33% of the male working population of Melrose District was employed in agriculture in 1966, establishes that this district is significantly different from the other three. It is different in the diversity of its employment base; it is different in that its population is greater than that of its chief burgh; it is different in the magnitude of service, office and industrial employment which is located outside the town, particularly at Newtown St. Boswells; it is different in that it looks beyond its own and county boundaries to Galashiels for much of its services and employment.

⁵⁷Ibid. p. 12.

⁵⁸Ibid.

The A7, A6091 and A68, between Galashiels and St. Boswells, connect a series of towns and villages which, on a map, might appear to form a continuous built-up area. This would be misleading. The communities are close and they do share services, employment and cultural amenities, but they are separated by agricultural land and non-agricultural satellite villages and each has a life and personality of its own. Many of the small villages, such as Gattonside, Newstead and Bowden, are more like suburbs than separate entities. They have no service facilities, but rely for those things on the towns. On the other hand the high incidence of retired persons who live there renders them less dependent on the towns for employment than might be expected.

To the south and east the district is agricultural and dotted with numerous small villages. One larger village Lillieslie has become a secondary service centre. A steep rise to the north of the Tweed transforms this part of the district into an upland area of scattered settlements which look to Galashiels, Lauder or Earlston.

Two major commitments have the potential to completely change the nature of Melrose District, the commitment largely accepted from the Central Borders study, to concentrate population inflow and industrial development in this area and the commitment in the reorganisation for regional government, to the removal of the county boundary between Melrose and Galashiels. These create prospects for Melrose District as bright as those for the Borders Region.

The Changing Role of the Village

According to the 1961 census, 35% of all residents in the County of Roxburgh, approximately 15,000 people, lived in the landward area.⁵⁹ Of these, 38% lived in villages of fifty persons or more, so that more than 8,000 lived in what may be described as countryside.⁶⁰

The unique history of the Borders has left its stamp on village settlement, particularly in the uplands. The centuries of rieving and the tradition of large estates dictated the tight, defensible communities which are scattered through the hill country and which are reflected in the larger, but still close-knit building patterns of the lowland villages. Upland settlements usually consist of large widespread hill farms and scattered community facilities, each insufficient to constitute a hamlet. Lowland settlements, where arable land permits intensive farming, are characterised by groups of farm buildings and attached cottages. Some are large enough to have established a service function.

Migration is changing the settlement pattern. The countryside population is draining into the burghs, into cities outside the region and into the villages too, as young people reject the restrictions associated with houses tied to farm employment. Their retired parents and the retired from outside the area are moving into the larger villages also. As they do, the function of the village changes. Where before it was entirely based on agriculture or

⁵⁹Ibid. p. 16.

⁶⁰Ibid.

service to farmers in a narrow catchment around the community, improvements in communication and transport and the greater availability of automobiles have put the village within range of larger markets and of commuting workers.

Migration has changed the social structure of the villages. Among the new residents are the moderately well-to-do who can afford to buy a retirement home and the more affluent who purchase a second home to vacation in the country. These trends are expected to increase with increased prosperity. Should the austerity of the 70's continue or worsen, however, the villages could suffer serious set-backs.

The Roxburgh study considered three possible thrusts for a landward development strategy, to direct new development into the countryside or into new communities or into existing communities. As there had been, for some years, an average of about 400 houses empty at any given time in the Landward Area⁶¹ and as government policy opposed the construction of new housing in the countryside, it was recommended that new housing should be permitted there only "in special circumstances and with stringent conditions".⁶² The study recognized that the County Council had already approved the Tweedbank development and the expansion at Newtown St. Boswells, but considered these to be in the nature of urban expansions. It concluded that with these two exceptions, "there would seem to be

⁶¹Ibid. p. 17.

⁶²Ibid.

no need for new communities of village scale in the County".⁶³

Thus future development in the landward area was to be based on existing communities.

Analysis of Villages for Growth Potential

If future development was to be confined to existing communities it was necessary to examine these communities and determine which had potential for growth. Settlements with fifty or more population were considered and scored on a four point scale on each of seven factors which seemed to enhance growth prospects. Then the influence of limiting factors such as competing pressures from other towns, natural setting, amenity considerations and existing service capacities were analysed and a development strategy determined.

The seven factors which favoured development were: size, the larger the village the more likely it was to attract new development; the number of services and facilities available in the village; recent development of the village as measured by new and committed house construction, immediate future prospects for growth as indicated on the Local Authority housing list and planning permissions for private housing; age structure and recent population change in the area as a predictor of natural increase; location in relation to settlements with the same or more services and facilities; availability of bus services to a range of destinations.

Limiting factors outside the village which were evaluated by the study committee included the County Council's commitment to a

⁶³Ibid. p. 18.

general pattern of growth in accordance with the proposals in the Central Borders Plan and the reports of Technical Working Parties in the Burghs. The main points of this framework were:

- (a) That the overall aim is to achieve a population growth of 25,000 within the Central Borders by 1980.
- (b) That the large majority of this increase should go to existing burghs. In this context it has been accepted by Roxburgh County Council that Hawick should be expanded by 6,000 to 23,000 and that Jedburgh be expanded by over 2,000 to 6,000. Large increases are also proposed for Galashiels and for Kelso, the latter having been outside the Central Borders Study. The increase in the case of Kelso amounts to 3,000 taking the population to 8,000.
- (c) The County Council is already committed to two substantial areas of growth in the landward area of the County - a population of 4,400 on a virgin site at Tweedbank and an increase of 3,000 taking the total population over 5,000 in the St. Boswells/Newtown area. In the latter case a Study is still in process to select areas suitable for housing and industrial development. This study has been set against a regional background beyond 1980 which it may become necessary to provide for a growth point to accommodate 10-12,000 if saturation should by that time have occurred in the Burghs.⁶⁴

The committee attempted to gauge the influences realization of this plan would have on the landward area and to predict relief measures that should be permitted.

A second limiting consideration involved the physical form of the villages, that is the configuration of existing houses and streets and the limitations or advantages to growth they presented. Containment by rivers or steep slopes and amenity considerations of exposure and aspect were weighted and calculated as promoting or inhibiting growth factors.

The Planning Committee took advantage of a survey completed some years earlier, to classify the land around each village. On

⁶⁴Ibid. pp. 27, 28.

the basis of this data they listed villages where the importance of preserving prime agricultural land limited desirable growth. No one could fault their good intent. What is remarkable is that at a time of world wide concern for the conservation of farmland the committee did not recommend the prohibition of development even on the land of highest quality. They suggested only that it "should be avoided".⁶⁵

Contrasting with the modest statement of concern for farmland preservation is the comprehensive consideration of amenity factors which should limit or encourage additions to individual villages. Each village was evaluated in terms of character, scale and form, cohesion, siting, appearance from each approach, important buildings and relationship to its environment, particularly where it was part of or might affect a Conservation Area or an Area of Great Landscape Value. Recommendations for further development were made for those villages in which amenity factors could be improved by additions, but growth was discouraged where the character of the community or the surrounding countryside might be impaired.

Finally, existing services, schools, sewerage, roads and water supply were considered in terms of present capacity and future demand.

An analysis of school enrolments and spare capacity indicated that expansion could be considered critical only at St. Boswells, Maxton, Gattonside and Newstead. A planned extension would soon

⁶⁵Ibid. p. 33.

be required at Hobkirk, but otherwise village populations could be approximately doubled without overloading existing capacity.

Water supply, in general, was not a deterrent to village growth. Only three villages were incapable of development in the order of 20-50% or more with existing water services.⁶⁶ Bonchester Bridge and Chesters were served by spring supplies which severely limited expansion. Plans had been proposed to supply Bonchester Bridge from the Ale Water Scheme, but the high cost of the four mile connection had been a deterrent. Intermittent shortages between Bonchester Bridge and Bedrule, where the connection would be made, were expected to provoke a positive decision in time, but on economic grounds it was felt that this should be accompanied by a large scale development at Bonchester Bridge. A pipe line to Chester was deemed too expensive to justify development there.

Heiton's was in a similar situation to Bonchester Bridge. The cost of new supply pipes to the Ale Water Scheme would be warranted only if a population increase of about 50% was envisaged.

St. Boswells and Newtown were special cases. They had sufficient spare capacity to accept 35% and 30% additional populations respectively, or about a total increase of 700.⁶⁷ But the County Council looked to an additional population of 3,000. Obviously major improvements would be required to supply the new population.

⁶⁶Ibid. p. 36.

⁶⁷Ibid.

Existing sewerage facilities proved to be an important constraint in determining in which villages development should be favoured. Sewerage and sewage disposal exhibited a greater variation in standards than any other factor. They ranged from full treatment works to none, with one village, Minto, having a privately owned sewage system.

With the completion of new facilities and extensions planned at the time of the study about half of the villages would have spare capacity, in most cases sufficient to accept a 50% increase in population. Most of the remainder required expensive renovations or redesigns before additions could be accommodated. The private system at Minto and the individual septic tanks at Chesters were judged unsatisfactory for present populations.

Limitations imposed by the road system operate in two directions, those that create problems within the village by generating increased traffic into it and those that create problems to through traffic. In addition, the roads serving a village may be inadequate to carry the increased traffic generated by an enlarged population.

The report concludes that only Lanton, Minto and Roxburgh would require improved road access in the event of major development and that none of these were suitable for expansion on other considerations.

Newtown was the only village seriously divided by a major road and a proposal for a by-pass was already in hand. A few other villages had serious problems with through traffic and parking.

By-passes were projected for Newstead and Heiton and internal improvements were proposed for other villages. On the other hand, realignments planned for Denholm and Newstead were questioned because of the amenity damage and the demolition they would necessitate. For the most part, however, most villages were assessed as capable of handling moderate expansion with existing road systems without serious adverse affects.

A Future Community Development Strategy

The Planning Committee prefaced their strategy with two qualifications. It would, in keeping with planning trends, deal with the near future and be subject to continuous review, and it would be neither detailed nor rigid in view of the impending change to regional government and the nature of the changes proposed, in direct contradiction to trends of the past century. The plan would, however, be positive and would stress economic and social considerations.

Minimum and maximum expansion figures for each village were not proposed. Instead, villages were allocated into five categories according to their suitability for expansion, the desirability of expansion and the likelihood that it would occur. Cost thresholds were considered as limiting factors where a commitment to the development had not already been made.

For economic and social reasons development of one settlement occasionally precluded development in another. Thus the strategy suggested the establishment of controls to curtail development in settlements designated as no growth areas.

Table F5

Classifications of Villages taking into account various Weighting factors

	Village	Inherent Growth pot- ential Classific- ation	Outside Pressures	Physical and Agric. Factors	Amenity Factors	Capacity of Existing Proposed Services	Classific- ation taking account weighting factors
Kelso District	Town Yetholm	B	+/*	+	+/*	+	B
	Morebattle	C/B	+	+	+	*	B/C
	Heiton	C/B	+	+	+	o	C
	Kirk Yetholm	B/C/D	+/*	+/o	o	+/o	C/D
	Ednam	C/D	+	+	+	o/+	C/D
	Stichill	D/C	+	o/+	o/+	o	D
	Sprouston	C/D	+	o/+	+	+	D/C
	Smailholm	B/C/D	+	+	+	+/o	C/D
Jedburgh District	Ancrum	B/C	+/*	+	o/+	*	B
	Bonchester Bridge	C	+/o	+	*	o/*	C/B
	Chesters	C/D	o	+	+	o	D
	Lanton	D/C	+/*	+/o	+	+	D/C
	Minto	C/D	*	+	+	o/*	C
Hawick District	Newcastleton	A/C	o	+/o	+	+	C/B
	Denholm	B	*	+/o	+/o	*	B
Melrose District	Newtown	A/B	*	+	*	+	A
	St. Boswells	A/B	*	+/o	+/o	+/o	B
	Gattonside	B/D	*	+/o	+/o	+/*	B/C
	Bowden	C/B	*	+	o	+/o	C
	Lilliesleaf	B/C	+	+	+	*	B/C
	Newstead	B/C/D	*	o	*	+/o	C/B
	Midlem	D/C	*	+	o	+/o	D/C
	Maxton	D/C	*	o/+	+	+/o	D/C
	Roxburgh	D/C	+	o	+	+	D/C

*Strong promoting factor for growth

oStrong restrictive factor to growth

+Factor neither strongly promoting or restricting growth

Source: Constable, F. S., County Planning Officer, County of
 Roxburgh: Landward Community Development Strategy.
 Council Offices, Newtown St. Boswells, p. 44.

Attention was paid to the existing mix of owner-occupied, private rented and Local Authority housing in the strategy recommendations, although these were not rigidly followed.

Table F5 sets out the classification of villages according to the various weighting factors and Table F6 categorizes the 24 villages according to the committee's recommendations for development. The five categories cited are explained in Table F7.

The Smaller Settlements

Although settlements with a population of less than 50 were excluded from the main analysis they were surveyed for limited development. It was the opinion of the committee that, in the

Table F6

Categorization of Villages according to Development Potential

A -	Newtown	Tweedbank
B1 -	Ancrum	St. Boswells
	Denholm	Town Yetholm
	Gattonside	
	Bonchester Bridge	Morebattle
B2 -	Lilliesleaf	Newcastleton
	Bowden	Minto
C1 -	Ednam	Newstead
	Chesters	Midlem
C2 -	Heiton	Roxburgh
	Kirk Yetholm	Smailholm
	Lanton	Sprouston
	Maxton	Stichill

Source: Constable, F. S., County Planning Officer, County of Roxburgh: Landward Community Development Strategy. Council Offices, Newtown St. Boswells, p. 45.

Table F7

Categories Assigned to Villages According to Physical and
Structural Characteristics

- A. Settlements which are suitable for considerable expansion. In these settlements development will probably substantially alter the existing character of the settlement. This will mean that considerable expenditure will need to be committed, and that cost thresholds will be of less significance than in settlements where more limited growth is proposed.
- B. Settlements which are suitable for moderate expansion, but where the basic existing village form will not be affected. These villages should be developed to their existing thresholds, and beyond if the scale of development would justify this.

This group has been divided into two -

- B1 Settlements where this scale of growth would be desirable, and on the basis of existing and future trends can reasonably be expected to be achieved.
- B2 Settlements where this scale of growth would be desirable, but where on the basis of existing trends and future prospects so far as they can be estimated, it cannot at present be considered likely.
- C. Settlements where expansion should be mainly in the form of minor infilling, rounding off and essential redevelopment, and where considerable capital expenditure in relation to the expansion of the village involving the crossing of the thresholds should be avoided. (This does not mean that expenditure considered necessary for the improvement of facilities for the existing population should be avoided.)

This group may again be divided into two -

- C1 Villages which could be allowed to grow by rounding-off, infilling and other limited forms of development within their existing thresholds.
- C2 Villages which should be strictly controlled as to their future growth or where even the limited development mentioned above seems unlikely in present circumstances.

Source: Constable, F. S., County Planning Officer, County of Roxburgh: Landward Community Development Strategy.
Council Offices, Newtown St. Boswells, p. 41.

main, there was a lack of prospects for growth in these communities and that in most cases growth was undesirable. In a few cases however, where community facilities had developed in isolation at a

crossroads, or mid-way between two or more settlements and had not attracted further growth, or where settlements were missing elements essential to a viable community, limited development in the form of "rounding off" or infilling should be permitted. On the other hand, developments such as the poorly planned post-war starts at Linden Park and Hayside, should be discouraged and similar projects disallowed in future.

The committee concluded that no new developments should be started in the countryside, except as already planned, and no further additions should be permitted except infilling and rounding-off in nine of the small settlements surveyed. They were Eckford, Eildon, Hobkirk, Hownam, Kirkton, Nether Blainslie, Newmill-on-Teviot, Oxnam and Robertson.

Summary

The Roxburgh Landward Study was initiated because a gap existed in information concerning trends in the countryside in the Borders. It set out to determine what had been happening and to provide a basis for a landward development strategy to complement burgh development policies and the regional proposals of the Central Borders Study.

The committee discovered that the larger villages were growing while the exodus continued from the countryside and the smaller settlements. It then analysed the changes underway in the county in relation to the catchment areas of the four burghs and proposed development policies for each area. The growth potential and limitations of each village were then considered and a development

strategy devised which listed each of the 24 villages in one of five categories according to how propitious were the conditions for development there.

Finally the lesser settlements were surveyed. The committee argued for no extensions and no new starts at this level, but recommended limited growth to fill gaps in nine of these settlements.

A Rural Policy for Berwickshire⁶⁸

This study is similar in many respects to the Roxburgh Landward Study, but it has additional significance in that Berwick is entirely rural in the planning context. In addition, it is the contention of the author that had the investment in Berwickshire since World War II been made according to principles of sound economic planning, it would have been sufficient to have stemmed the depopulation and decline that has occurred.⁶⁹ Secondly, the changed nature of today's society, with its greater mobility, affluence and leisure time, puts pressures on all parts of Britain. Where once change was slow and controls were unnecessary, development strategies are essential for the present and the future.

In recent years the Government has recognized the problems and has provided legislation dealing with conservation and improvement of the environment, access to the countryside, tourism and industrial

⁶⁸ Knowles, Basil, County Planning and Development Officer, A Rural Policy for Berwickshire. County Offices, Southfield Lodge, Duns.

⁶⁹ Ibid. Introduction to the Draft Report.

development. Berwickshire must have policies to meet the pressures and to take advantage of all assistance available. The Planning Committee saw this as an important part of their remit.

The Problem in Berwickshire

Berwickshire is the most rural of the Border counties. Agriculture predominates and there is very little manufacturing. So scattered is the population that there are no large burghs, only four settlements qualify as small burghs and the largest of these had a population in 1971 of 2,573. As a consequence the natural focus of the county is Berwick-on-Tweed, beyond the border, in Northumberland.

The problems of depopulation and decline are more serious in this county than anywhere else in the Borders. Emigration has been a problem since 1861, but occurred at a record rate between 1951 and 1971. As elsewhere in the region, the greatest loss has been among the young so that Berwick has the lowest marriage fertility rate and the lowest birth rate in Scotland.

The main reason for the population loss was the common one of declining agricultural employment, but Berwick tendered no alternatives. Low wages, poor housing, a lack of amenities, all characteristic of a non-industrial society, all exacerbated the situation. The unemployed followed the familiar trek from the countryside to the larger towns and cities. But Berwick had no larger towns or cities. By the 1970's the loss of population had reached a critical level. A solution had to be found. Given the

employment and settlement patterns in Berwick, the solution seemed likely to involve the attraction of industry and the establishment of a new relationship between development plans and the countryside.

Extent of the Problem

Between 1861 and 1951, the population of Berwickshire fell by 11,545 or 31%. In the next decade it fell by 2,631, almost a quarter of the total decline over the previous ninety years. Between 1961 and 1971 the loss was 1,475 for a twenty year fall of 12% of the 1951 population. (See Table F8) So many 20-40 year-olds were included in these numbers that the 1961 census recorded a natural decrease in the county for the decade and the 1971 census registered only a slight natural increase.⁷⁰

Table F8

Population Decline in Berwickshire 1861-1971

<u>Year</u>	<u>Population</u>	<u>% Decrease</u>
1861	36,613	
1871	36,486	- 0.4
1881	35,392	- 2.9
1891	32,406	- 7.5
1901	30,824	- 4.9
1911	29,643	- 3.8
1921	28,246	- 4.7
1931	26,612	- 5.8
1951	25,068	- 5.8
1961	22,437	-10.5
1971	20,962	- 6.6

Source: Knowles, Basil. County Planning and Development Officer. A Rural Policy for Berwickshire. County Offices, Southfield Lodge, Duns, p. 24.

The predominance of agriculture in male employment is marked. Approximately 40% of working men in 1961 were employed in agriculture,⁷¹

⁷⁰Ibid. p. 3, Section 2.

⁷¹Ibid. p. 48.

20% worked in construction, 23% were in service jobs and just 13% in manufacturing.⁷² The concentration of the male labour force in declining and slow growth industries is obvious.

One more statistic adds weight to the seriousness of the employment picture. Approximately 40% of school leavers leave the county for work or further education and few return.⁷³

National Context

The geographical position of Berwick, its scattered population, poor communications, and the nature of its relationship with the cities around it, render it a "remote rural area". Transportation costs to manufacturers who might locate there are higher (although in itself this is not of great significance); communications between buyer and manufacturer, between branch plant and head office, are more difficult; there is no large centre with a ready pool of labour and a wide range of technological services; existing labour is not skilled and the local market is too small to attract manufacturers. These factors combine to discourage new industry and to entrench dependence on the resource industries, farming, fishing and forestry.

Manufacturers considering the establishment of a new factory in Berwickshire, find the county, compared to other parts of the nation, has an economy based on slow growth and declining industries, has low participation rates, heavy outward migration, low productivity and low incomes.

⁷²Ibid. p. 3, Section 2.

⁷³Ibid.

Regional Context

Any strategy for Berwickshire must consider its relationships to the Central Borders and to northern Northumberland. At the same time it is important to note an essential distinction between the Central Borders on the one hand and Berwick-Northumberland on the other. Over 70% of the population of the Central Borders in 1971 lived in burghs, whereas over 70% of Berwick residents lived in the landward areas. 40% of the insured population in the Central Borders worked in manufacturing compared to 13% in Berwick.⁷⁴ Should the Central Borders Plan be successfully implemented many residents of western Berwickshire will find employment in the central corridor. Should plans to enlarge the population of Berwick-upon-Tweed by 20,000 be successful, this will have a marked effect on eastern Berwickshire.

Method

Initially the Berwickshire Planning Committee adopted an approach similar to the village classification method used in the Roxburgh Study. It became apparent, however, that for Berwickshire with its scattered population and absence of well rounded service centres, settlements had to be grouped to gather a sufficient population to support a reasonable range of facilities. This system enabled the committee to plan "exploded service centres" with each settlement assigned a function within the group. In this way existing settlements were kept alive and it was unnecessary to create new full service centres.

⁷⁴Ibid. p. 7.

Eight groupings were agreed upon. They were the Eyemouth Settlement Group, the Duns Settlement Group, the Galashiels Settlement Group, the Coldstream Settlement Group, the Berwick Settlement Group, the Kelso Settlement Group, the Dunbar Settlement Group and the Isolated Settlement Group. It is of interest to note that of the seven groups focusing on an existing community, four focus on burghs outside the county.

Even gathering the populations of individual communities in this way provides such small combined populations that development of the groups will be difficult. The largest group, the Eyemouth Settlement Group had a total population in 1971 of 4,130. The two next largest were between 2,000 and 2,500, three were between 1,000 and 1,500, Dunbar Settlement Group had just 360 and the Isolated Settlement Group had a combined population of 200. The overall increase projected to 1981 is a modest 2,710 persons. Yet even this small gain represents a 20% growth, in fact an ambitious target for a ten year forecast.⁷⁵

Individual group targets appear unrealistic in some cases. The plan called for a rise in population of 43% for the Berwick Settlement Group, 34% for Coldstream and 22% for Dunbar. For four groups the proposed increase ranged from 10 to 18%. Only the Isolated Settlement Group was not expected to grow.

Among the villages the most optimistic forecast was for a 213% increase in the population for Foulden! While it is true

⁷⁵Ibid. Part I, pp. 16 to 24.

that the recent construction of a new school and a drainage works increased the likelihood that the village might attract new residents, and the proximity to Berwick-upon-Tweed made it a likely growth centre should Berwick's hoped-for expansion take place, the dependence of the Planning Committee on private housing development for most of this expansion seemed overly optimistic.

A major weakness of the projections is that they rely too much on the generation of Berwickshire growth by activity beyond the county boundaries in Berwick, Kelso, Newtown St. Boswells, Tweedbank and Galashiels. It is a strategy of reaction more than action.

Evolution of the Settlement Pattern

Despite the changed circumstances of the 20th century, the evolution of the existing pattern of settlement and the reasons for that development must be understood if solutions to its deterioration are to be found. The geographical, geological and historical determinants were appraised by the Planning Committee against a two component framework of organisation. The first component was a "horizontal" one which focused on the location of settlements and the distances between them. The second, or "vertical" component, was concerned with the size of the settlements, the range of services centred there and the relationships between each and neighbouring settlements of higher and lower orders.

Two criteria were largely responsible for the basic form of Berwickshire villages in medieval times, the convenience of siting farm buildings between adjacent arable fields and the necessity to cluster these buildings for protection. In times of peace, social

considerations contributed the desirability of a square or green within the circle of dwellings.

As trade among the settlements increased, some of the settlements offered a wider range of services, larger markets with a greater variety of goods and larger populations. These became the higher order villages and the focus of an expanding hinterland. Nearness of a higher order settlement reduced the need for replication of the services it provided and inhibited the growth of communities within the settlement's sphere of influence. Thus the vertical component of organization was reflected in the horizontal or spacial component.

The Planning Committee identified a three tiered hierarchy of hamlets, villages and towns according to the number of shops, central functions and community facilities present. By graphing them for 1950, 1960 and 1970, they were able to demonstrate the deterioration of the service network and of the villages themselves over the two decades.

The decline of villages and service centres in Berwickshire was the result of the now well documented fabric of circumstances referred to at so many points already, mechanisation of agriculture, a reduced farm labour force, economies of scale in marketing and service trades, refinement in consumer preference, increased mobility and affluence. All these reduced the population and economic bases of the settlements until by the time of the report some at the bottom of the hierarchy had lost all their service functions to higher order centres. The process continues as increased mobility extends travel-to-market distances, higher

order centres extend their spheres of influence and more and more lower order settlements find their businesses redundant.

The task of the Planning Committee was to find a new arrangement which would give a new role to the smaller settlements to stop their decline, and to warrant their continued existence, but which would as well, generate a resurgence of the economic life of the larger villages or groups of villages and revive their rural hinterlands.

Infrastructure Appraisal

The present and future development potential of each settlement was appraised against an eighteen point check list of services and facilities. In each category a rating of satisfactory, deficient or non-existent was employed. Where a proposal for new or extended facilities had been made this was noted.

Major Services

In general, water supply was satisfactory throughout the county or proposals for upgrading were in hand. Drainage facilities were commonly deficient or non-existent. Electricity was satisfactory for household use but inadequate for some industrial operations. The report urged the speed-up of a ten year programme of improvement that the Electricity Board had begun.⁷⁶

Education and Recreation

Diminishing enrolments throughout the countryside resulted in the closing of fourteen small schools between 1960 and 1971 and

⁷⁶Ibid. Part II, p. 21.

reduction of others to the one or two teacher category. A decision of the Education Authority in 1969 sealed the fate of other very small units and the amalgamation of their pupils into five three-teacher, four four-teacher and five larger primary schools. Only in the hill country where distance makes other arrangements impractical were the one-teacher units permitted to survive.

After the closing of the junior secondary schools at Chirnside and Coldstream in 1968, all secondary pupils were housed in three schools, at Earlston, for the West District, Duns, for the Middle District, and Eyemouth for the East District. Six year comprehensive programmes were available at Duns and Eyemouth and four year comprehensive at Earlston.

Fifteen of the settlements no longer had educational facilities in 1971. In thirteen the facilities were judged deficient, but for five of the thirteen proposals for improvement had already been made.

The greatest shortfall in educational provision in Berwickshire is in further education. The only facility is the Agricultural Training Centre in Duns with its few specialist courses. Nor is there any college with a broad programme elsewhere in the Borders. Thus all settlements in the county were deficient in post-secondary opportunities.

Public Transport

Bus services provide the only internal public transport in Berwickshire except for the railway up the coast. Both the number

of routes and the regularity of service have declined rapidly in the face of depopulation and increased utilization of private motor cars. What remains is inadequate. Many villages have no service at all and for many others the service is infrequent and inconvenient. There is, however, little hope for improvement. As service becomes more unsatisfactory, fewer people use it and losses grow. Hence, the service must be further reduced, more customers change to automobiles and cut-backs are necessary again. The necessity to retain a minimal service for social and economic reasons makes ever larger subsidies a likelihood.

Population and Housing

Emigration of people in the 15-49 age group, the most active working group, has been unusually great in Berwickshire. By 1966, there were more residents fifty years of age or older than there were in the 20-49 age group. When this is combined with the lowest marriage fertility rate in Scotland it forecasts long term detrimental effects on employment, education, community facilities, shopping and public transport services.⁷⁷

Some encouragement was derived from the reversal of the population decline in Coldstream and Eyemouth, probably as a direct result of the new industry attracted to the county and the greater emphasis on tourism.

Private housing development increased in the 1960's, particularly in the second half of the decade, in the Coldstream, Eyemouth and

⁷⁷Ibid. p. 27.

Berwick groups in areas where population showed an upward trend. Local Authority housing was concentrated in three burghs, Eyemouth and Coldstream where population increased, and Duns where an increase was expected, but a decline occurred. This was in line with the recommendation of the report that development should not be encouraged in most of the small villages and hamlets.

Employment

Only six villages had industrial areas deemed satisfactory by the Planning Committee. They were Eyemouth, Duns, Earlston, Coldstream, Chirnside and Greenlaw. Two others, Reston and Gordon had proposals for improvement under consideration.⁷⁸ This is clearly the result of the traditional employment structure of Berwickshire in which 32% of all jobs are in the primary sector (43% of all male labour).⁷⁹

Agriculture employed the bulk of the primary sector workforce, in 1969, but fishing was an important employer along the coast and some jobs were provided in forestry and quarrying.

The shortage of adequate industrial areas was also a product of past history in manufacturing in Berwickshire. Textile manufacturing accounted for 5.7% of total employment, an unusually low level for the Borders. Paper manufacturing, printing and publishing accounted for 3% and fish curing, grain milling, bread and flour production, accounted for most of the 2.6% employment in the standard

⁷⁸Ibid. Figure Fl.

⁷⁹Ibid. Part II, p. 34.

industrial classification order of food, drink and tobacco. The only other significant secondary classifications, engineering and electrical goods, timber, furniture etc. and other manufacturing industries, employed 1.6%, 1.3% and 1.4% respectively.⁸⁰ All of these classifications are ancillary to the primary industries of the county. It would appear that adherence to this synergistic relationship had become by 1969 a disincentive to growth in the manufacturing sector.

Construction provided 13.5% of all employment⁸¹ and 20.2% of total male employment⁸² in 1969, but the numbers employed were falling. Any upturn in manufacturing within the county in tourism, or in industrial development in centres such as Berwick, Kelso or Galashiels, would result in increased employment in construction. Failure to stimulate development, on the other hand, would undoubtedly result in a continuance of the decline in the numbers employed.

Employment in the tertiary sector, excluding construction, accounted for 38.6% of the total labour force. The majority of these workers were female, this sector providing 67.4% of all female jobs in Berwickshire. The two largest classifications were professional and scientific services (12.7%) and miscellaneous services (11.7%). 27.4% of working women and 5.2% of working men

⁸⁰Ibid. Part II, p. 41.

⁸¹Ibid.

⁸²Ibid. Part II, p. 35.

were employed in the former group, mainly as teachers, although significant numbers of women were employed in medical and dental services. 24.0% of all female labour and 5.2% of total male employment were in the miscellaneous services category. For females these were primarily in private domestic service, hotels and catering. For men they were motor repair, distribution, garage and filling station jobs.⁸³

The employment structure of Berwickshire is compared to that of Scotland and of the Southwest Scotland region, in Table F9. Heavy reliance on primary employment, mainly in agriculture, and a low level of employment in manufacturing are particularly evident when the situation in the county is compared to the situation in Scotland, but even a comparison with the rest of Southwest Scotland highlights the seriousness of Berwickshire's small manufacturing base. This deficiency, combined with the small and scattered population of the county, militates against any attempt to induce industry to establish indiscriminately in the villages. Development efforts should be concentrated in a few growth points and discouraged elsewhere. The report concurs in this view.

Table F9

Employment Structure in Berwickshire compared to Southwest Scotland and Scotland

	Berwickshire	Southwest Scotland	Scotland	+ Berwickshire - Scotland % Difference
Primary	32.6	26.0	5.8	+26.8
Manufacturing	14.4	24.0	35.0	-20.6
Construction	13.6	14.0	8.8	- 4.8
Service	39.4	37.0	50.5	-11.1

Source: Knowles, Basil. County Planning and Development Officer. A Rural Policy for Berwickshire. County Offices, Southfield Lodge, Duns, Part II, p. 36.

⁸³Ibid. pp. 35, 36.

Employment Trends and School Leavers, 1965-1970

The overall employment trend in Berwickshire between 1965 and 1970, using statistics for the Eyemouth Exchange Area may be summed up as downward. There were fewer jobs in agriculture, forestry, fishing, manufacturing, construction and service trades.⁸⁴

Shrinkage of the labour force and consequently of the job opportunities available, and a narrow range of choice in types of work, encourage school leavers to look beyond the county for employment. During the second half of the sixties roughly one-third of school leavers who went outside the county for employment took jobs of a kind normally available in Berwickshire, one-third took jobs classified as "sometimes available in Berwickshire", and one-third found employment in "jobs not normally available in the county". Obviously, school leavers look outside the county for employment for reasons other than a job shortage at home. But the narrowness of the employment base in Berwickshire must be a major cause of the outward movement.

Trends in Agriculture

The mainstay of Berwickshire agriculture has been and continues the rearing of livestock, primarily sheep. Cattle, especially beef cattle up to one year old, are increasing in importance, but still are much behind the importance of sheep.

Amalgamation of small farms and mechanization have contributed to a rapid reduction in numbers employed and in the relative

⁸⁴Ibid. Part II, p. 46.

importance of some crops. Barley acreage has increased while oats and root crop production have declined. Dairying, pig and poultry rearing, formerly carried on on most small farms, have become specialist functions on large, efficient units.⁸⁵

Trends in Fishing

The experiment to develop a food processing complex in the Eastern Borders has resulted in an increased production of vegetables along the coast. In addition the fattening of cattle and sheep for beef and mutton processing has begun. The possibility of fish processing in the same area provides future prospects of considerable importance, which should accelerate development of the food processing industry, particularly at Eyemouth.

Agriculture continues to be the largest employer in Berwickshire. Moreover, the rapid decline in its importance seems to have been slowed as the smaller holdings have been eliminated and mechanization has levelled off. With the establishment of food processing in the county prospects are good that present farm employment levels will be maintained over the next few years.

Trends in Forestry

An annual rainfall under 40 inches limits the potential of the Eastern Borders for reafforestation, but considerable woodland does exist throughout the county where conditions permit it. Most of the existing growth is in dedicated woodland and Forestry Commission plantings, private woodlots having been cut and not replaced in recent years. There seems to be little concern about the situation

⁸⁵Ibid. Part II, pp. 48-65.

except as it affects the future of hill farming and grouse shooting although there is some dissatisfaction with the preponderance of soft woods in the government forests, from an aesthetic point of view.

Trends in Fishing

Although the number of people employed in fishing, in the four ports of Eyemouth, Burnmouth, St. Abbs and Cove fell slightly between 1966 and 1970,⁸⁶ the loss was not significant and prospects are good for future growth.

Factors diminishing future potential include over-fishing, rapid inflation in costs, a shortage of dependable, trained crewmen, the dangerous entrance to Eyemouth harbour, and a fishing fleet two-thirds comprised of undersized vessels.⁸⁷ On the positive side is the potential for the establishment of a fish processing industry and of development of Eyemouth as a base for Common Market fishing.

The Road System

If Berwickshire is to share in the economic growth planned for the Borders Region, it must have an improved road system. Presently the two trunk roads that cross Berwickshire do so up the extreme east and west borders and there is no good east-west highway. Although recognising the high cost involved, the report recommends the four-laning of the A1 and the construction of a major east-west road from Berwick-upon-Tweed through Duns, Greenlaw,

⁸⁶Ibid. Part II, p. 66.

⁸⁷Ibid.

Earlston, Galashiels and Peebles to Glasgow. This route could form the spine of a new roads network for the county.

Health Services Provision

By and large the county is fortunate in the availability of doctors, nurses, surgeries and hospitals. Only the Dunbar and Isolated Settlement Groups are without doctors residing in their territory and only the Eyemouth Settlement Group is without a hospital. The report recommends the establishment of hospital facilities in the Eyemouth area, but makes no recommendation about doctors for the first two groups. Instead it stresses the problem of poor communications for those without private cars, citing the plight of the elderly and infirm who must get to clinics or to the chemist from remote areas.

Countryside Appraisal

The report identified areas, routes and sites of special interest in Berwickshire which might be made more accessible or developed for greater utilisation by tourists, through grants available to local planning authorities under the Countrysides (Scotland) Act, 1967.

Under the Act contributions may be obtained from the Central Government of up to 75% of the cost of provision of: improved access to open country, public paths and long-distance routes for walking, cycling or riding on horseback, country parks, camping and caravan sites, facilities for accommodation, meals or refreshment, picnic areas and parking places, ranger service for the care of public areas, tree planting and general landscaping.

A plan for countryside development within the scope of the Act was outlined in general terms for a ten year period. It included a philosophy of land utilisation that called for a maximisation of benefits from the land through multiple usage. Forests, strip woodlots, hedgerows and individual trees were encouraged and so planted that they would not interfere with present land use, but would complement it thereby providing, as an example, for increased agricultural yield while at the same time permitting increased numbers of grouse.

Soil research was urged to determine the best use of land. Building controls were recommended to ensure sensitive designs in keeping with the settings. Co-ordination of planning among all those interested in the rural environment was deemed an essential element. Such agencies as the Countryside Commission, Scottish Landowners Federation, Border Agricultural Executive, and the National Farmers Union were mentioned as groups whose programmes should be integrated so that the overall goals of all might be realised.

Research into plans of some of the agencies showed that village scale development was inappropriate and the scheme of sub-regional settlement groups was adopted to provide larger population bases and wider spectra of local facilities. Since the major controlling device of the local planning authority was its control over housing development, it was decided that a "growth point" would be designated in each settlement group and the other settlements would be given lesser but specific functions to contribute to the total physical, cultural, social and economic environment of the group. It was on the basis that the detailed plans for each settlement group, already outlined were formulated.

Summation *Marshall Report*

The sparse population of Berwickshire presented a formidable obstacle to the design of a strategy of rural development. "A Rural Policy for Berwickshire" is a unique attempt to overcome this difficulty. Whether it is a sufficient answer or not, it would certainly appear to have pointed the correct direction for future strategies.

The problems of Berwickshire are, in some ways, exaggerations of the problems of the Borders as a whole. Thus it is of interest to note the objectives laid down by the authors of this report. They affirm the principles that have underlain the recommendations in all the previous burghal and rural plans.

The ultimate policy must aim at achieving a quality of life for the population which will afford reasonable economic, physical, social, cultural and recreational opportunities in the county.

The immediate need is to stem the decline in population, because unless this happens the unduly low activity rates in the county will persist, labour will continue to be used in low productivity occupations and the structure of the population will continue to be adversely affected by the loss of the younger and more active age groups.

To restore confidence in the county by proving that positive change and well planned development can provide a rural society with the same opportunities as that of an urban society and at the same time halt the migration from Berwickshire of potential leaders and the young and energetic population.

To utilise to the best advantage of Berwickshire the limited economic resources available to Central Government, Local Government and private enterprise. There is no doubt that because of the present economic situation, it is absolutely essential to be selective in the choice of further investment.

To exploit the enormous resource potential of the land, soil and water in Berwickshire by utilising the services of specialist bodies in the management of this potential.⁸⁸

⁸⁸ Ibid. Part II, p. 82.

The Johnson-Marshall Report

The most influential development plan for the Borders Region thus far has been the Johnson-Marshall report, "The Central Borders: A Plan for Expansion", published in April, 1968.⁸⁹ The terms of reference for the study specified three aspects of growth for which reports were to be prepared: advice on the immediate expansion of Galashiels at Tweedbank; advice on an increase in the population of the Central Borders by 25,000 persons by 1980; and broad term advice on self-generating growth after the 1980's.

The report accepted the proposed development of Tweedbank to house 4,400 and the commitments in approved development plans to expand existing towns by 5,000, but it went a great deal further by recommending the concentration of development in a central corridor between Galashiels and Newtown St. Boswells, a concentration which represented a major departure from the previous dispersed pattern. A "regional city" context was suggested as a co-ordinating element to development, with all Border settlements sharing their facilities and amenities.

No new industrial estates were proposed in the report, except a portion of the Tweedbank development. The largest existing site, a 100 acre estate near St. Boswells, was cited for immediate development with an additional 60 acres proposed to be added to it in the future. All other existing sites committed to development were accepted with the single exception of Peebles, where a reduction in

⁸⁹ Scottish Development Department, The Central Borders: a plan for expansion. Edinburgh, H.M.S.O., 1968.

the allocation was recommended, in keeping with the designation of Peebles in the report as a convention centre.

A twofold increase in the tempo of housing construction was proposed to increase the number of housing units by 8,710 by 1987 to accommodate the target population increase of 25,000.⁹⁰

Transportation improvements were recognized as essential to the development envisaged. The report recommended that road improvements be concentrated on the A68 as the major trunk road through the region, on the A698 between Hawick and the A68, that the A7 be designated as a tourist route and that the A6091 through Melrose be improved as a main link between Galashiels and the A68.

In keeping with the regional city concept, Galashiels was to become the major commercial centre, Newtown St. Boswells was to be developed as the administrative centre, Melrose was to take on an expanded cultural role and Peebles was to enlarge its role as the convention centre. Between Peebles and Galashiels a large tract was excluded from industrial development as a country park.

The Johnson-Marshall Plan was formulated on the basis of detailed economic and physical analyses of the three counties. The report was hailed as, potentially, a major contribution to the revitalization of the Borders. It was prestigious. It had the blessing of the Scottish Development Department, and considerable, if qualified, support from the burgh and county councils in the region. But it suffered from the weakness of all too many develop-

⁹⁰Ibid. Volume 2, p. 32.

ment strategies; it was the product of a central government agency that did not have the executive authority to co-ordinate and to implement the policy at the regional level. In the absence of a regional body so empowered, many local authorities found fault with recommendations concentrating development in the central corridor; councils of burghs not favoured in the planned expansions redoubled their efforts to attract new industry and these efforts were frequently successful. Growth occurred in the Central Borders in the years immediately following the Johnson-Marshall study, but the growth did not always accord with the report proposals. A review of that growth and of associated changes is in order, to determine if a pattern of development is emerging and if the Johnson-Marshall strategy is consistent with recent trends.

The pivotal recommendation of the Johnson-Marshall strategy was the concentration of development in the central corridor. While major new initiatives were planned there, the burghs lying outside this axis were relegated to a static or limited growth status. In the initial stage of implementation the attraction of 6,775 new residents was envisaged, of which only 375 were to reside outside the corridor,⁹¹ in just two burghs, Hawick and Selkirk. The traditional local pride of the Borderers ensured a strong reaction against this part of the plan.

Legal delays frustrated the expansion plans for the Tweedbank site for more than three years. Without the catalyst of Tweedbank, Galashiels and Newtown St. Boswells did not attract the growth anticipated. In the meantime energetic salesmanship created growth

⁹¹Ibid. Volume 1, pp. 26, 30.

in some burghs beyond the maxima postulated in the report. Despite an overall loss of approximately 3,000 persons between 1966 and 1970, the population of the burghs in the Central Borders increased by approximately 475. Burgh and landward gains and losses are outlined in Table F10.

Table F10
Comparison of Populations in the Central Borders
1966 and 1970

	1966 ^a	1970 ^b	Gain or Loss
<u>Burghs</u>			
Innerleithen	2,020	2,233	+ 213
Peebles	5,930	5,600	- 330
Hawick	16,290	16,760	+ 470
Jedburgh	3,460	3,785	+ 325
Kelso	4,320	4,579	+ 259
Melrose	2,130	2,236	+ 106
Galashiels	12,430	12,218	- 212
Selkirk	5,920	5,564	- 356
			+ 475
<u>Landward</u>			
Broughton D.C.	950	996	+ 46
Innerleithen D.C.	1,430	1,418	- 12
Linton D.C.	2,650	1,837	- 813
Peebles D.C.	1,190	1,158	- 32
Hawick D.C.	4,250	3,711	- 539
Jedburgh D.C.	3,320	3,067	- 253
Kelso D.C.	4,060	3,599	- 461
Melrose D.C.	5,660	5,069	- 591
North D.C. Selkirk	2,240	1,651	- 589
South D.C. Selkirk	1,150	982	- 168
			-3,412
Peeblesshire	14,170	13,242	- 928
Roxburghshire	43,490	42,806	- 684
Selkirkshire	21,740	20,415	-1,325
Central Borders	79,400	76,463	-2,937

Sources: ^aRegistrar General for Scotland, Edinburgh.
10% Sample Survey 1966.

^bRegistrar General for Scotland, Edinburgh.
Annual Estimates of the Population of Scotland 1970.
H.M.S.O., 1971.

Of the five small burghs in the central corridor, Innerleithen and Melrose increased in population between 1966 and 1970 while

Peebles, Galashiels and Selkirk declined, resulting on balance, in a loss of 579 residents from the corridor during the immediate post Johnson-Marshall period. Outside the corridor, Jedburgh, by itself, gained the 375 new residents allotted to all non-corridor burghs in the report. Hawick's growth by 470 and Kelso's additional 259 swelled this figure to 1,104, almost three times the prescribed growth for these burghs. Expansion in the central corridor, so crucial to the Johnson-Marshall strategy, appears to have suffered a set-back in this initial period.

Offsetting the disappointing population figures are the statistics for housing completions during the same period. These are shown in Table F11. Since the central corridor contained just 20% of the population of the Central Borders in 1966, the 31% figure for 1968-70 indicates a concentration of development not apparent in the population data.

Table F11

Housing Completions 1966-1970^c

	Central Borders	% in Central Corridor
1966-67	458 per annum	14%
1968-70	386 per annum	31%

Source: ^cScottish Development Department, Edinburgh.
Monitoring Change in the Borders. An internal report prepared by Paul Gregory, 1971.

Some measure of the commitment of the Central Government to the Johnson-Marshall Plan may be obtained by comparing loan consent and grant statistics from Government departments. Although these may represent only a small proportion of total investment in the region and may overstate actual investments during the period by these departments, by virtue of programme delays, a significant

geographical bias in the allocations would indicate government support or non-support for the Plan. Figures F5 and F6 suggest that the central government is actively backing the Johnson-Marshall strategy. Figure F5 shows loan consents granted on capital schemes between 1966-1970 for public buildings such as fire and police stations, for local authority and hospital health services, for water and sewerage schemes and for education purposes. Figure F6 depicts the then anticipated expenditures in the same areas from 1970-1974. For both periods the central corridor was allotted over half of the total expenditure.

The Johnson-Marshall Plan called for acceptance of the A68 (T) as the principal north-south artery through the region and recommended that major road expenditures be concentrated on the artery and on the A698 between Hawick and the A68 (T). The A7 (T) was to be relegated to a tourist route and was to receive a smaller portion of improvements in keeping with this reduced status. East-west traffic was to be alleviated by improvements to the A6091 between the A7 (T) and the A68 (T).

Table F12 reveals that more was spent per mile from 1966-1970 and during 1971-72 on the A7 (T) than on the A68 (T) despite the recommendations in the Johnson-Marshall report. Nevertheless, the figures for 1971-72 do suggest an acceptance of the increasing importance of the A68 (T) vis-a-vis the A1 (T). As a through route the A68 (T) is gaining in popularity and this is reflected in the figures.

Table F12
Expenditure Per Mile on Trunk Roads in the Borders

	A7	A68	A1
1966-70	£15,000	£ 9,000	£20,000
1971-72	£27,000	£20,000	£17,000

Source: Scottish Development Department, Edinburgh.
Monitoring Change in the Borders. An internal report
prepared by Paul Gregory, 1971.

Loan consents to housing authorities in the Central Borders provide another means to assess growth trends since the completion of the Johnson-Marshall report. These are depicted in Figure F7. It is clear that authorities outside the corridor were granted far more than those in the corridor.

The extent to which local authorities have accepted the Johnson-Marshall strategy may be gauged in part by comparing the amount of land made available for development within settlements in the corridor and settlements outside of it. Table F13 shows that for the period 1967-71 only 17 acres of land were developed in the central corridor, while 108 acres were developed elsewhere in the three counties. This compares to the Johnson-Marshall Plan first stage recommendations that 160 acres be developed in the central corridor and only 10 acres be developed outside it.

Table F13
Land Developed through Planning Permissions 1967-71

Within "Central Corridor"		Outside "Central Corridor"	
Planning Permissions	"Central Borders" Recommendations 1st Stage	Planning Permissions	"Central Borders" Recommendations 1st Stage
17 acres	160 acres	108 acres	10 acres

Source: Scottish Development Department, Edinburgh.
Monitoring Change in the Borders. An internal report
prepared by Paul Gregory, 1971.

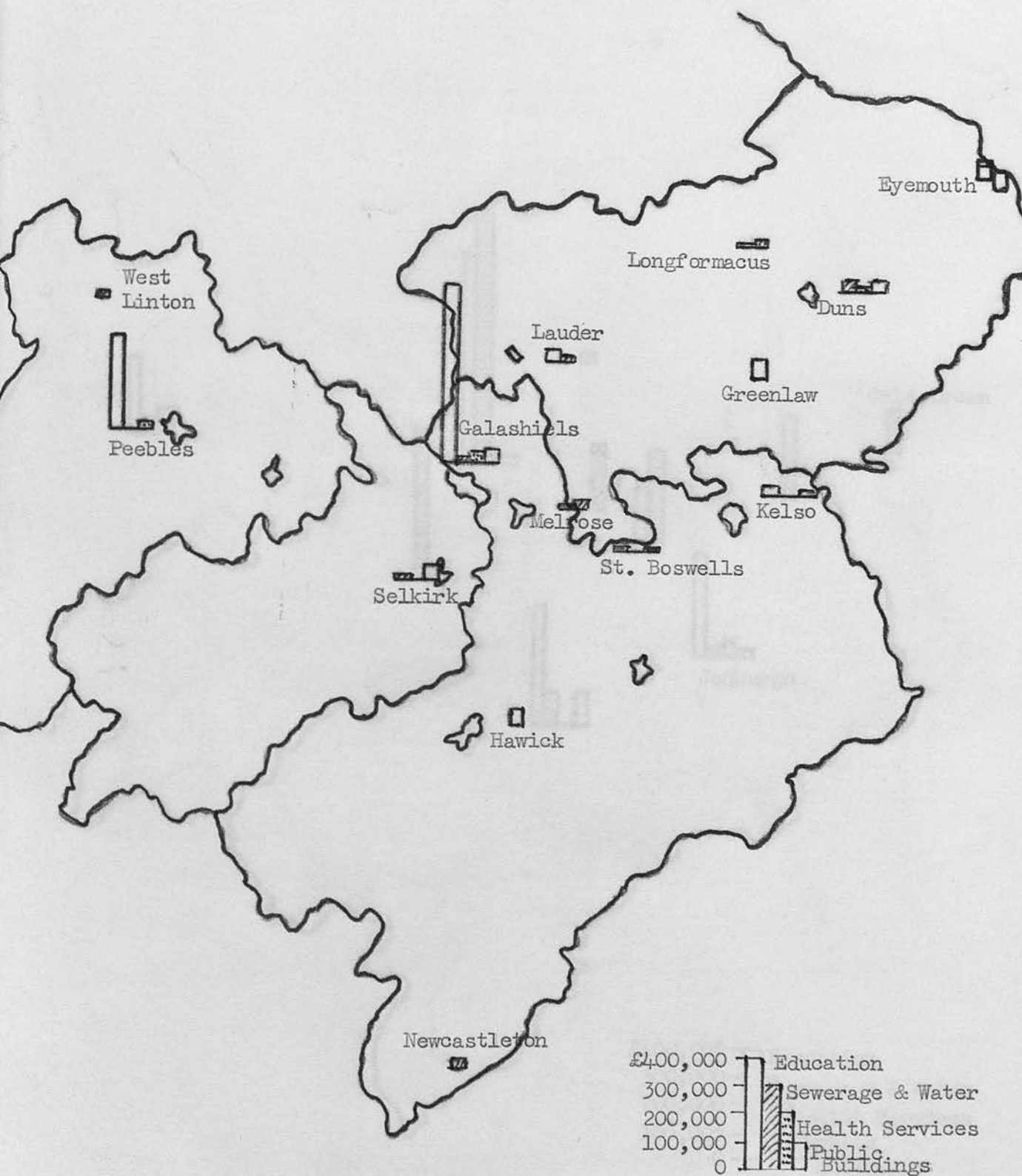
The evidence suggests that despite the support of the Scottish Development Department, the recommendations of the Johnson-Marshall Plan are not being implemented in the Central Borders. Rather the central corridor has thus far failed to show a significant advancement over the outlying burghs, while settlements outside the corridor have proceeded apace, frequently outstripping by 1971 the physical and economic growth suggested as maximum in the Johnson-Marshall projections.

Paul Gregory, in his useful report, "Monitoring Change in the Borders", suggests that in retrospect, the Johnson-Marshall Plan may be seen as a challenge to local authorities in the region "either to achieve their targets, or to demonstrate their individual strengths if they considered themselves unfairly represented in the University Proposals"⁹². Perhaps the ultimate usefulness of all development plans lies in this dualistic challenge. If so, the Johnson-Marshall Plan has already achieved a good deal. If not, it may be premature to evaluate the success of a strategy, the implementation of which, became feasible only with the establishment of regional government in 1975. At the very least, this plan has focused government attention on the problems of the Borders and has illustrated the difficulties imposed on planners by asymmetrical definitions of the boundaries of government and quasi-government authorities, which overlap and extend beyond legislative jurisdictions.

⁹² Scottish Development Department, Edinburgh. Monitoring Change in the Borders. An internal report by Paul Gregory, 1971, p. 11.

Figure F5

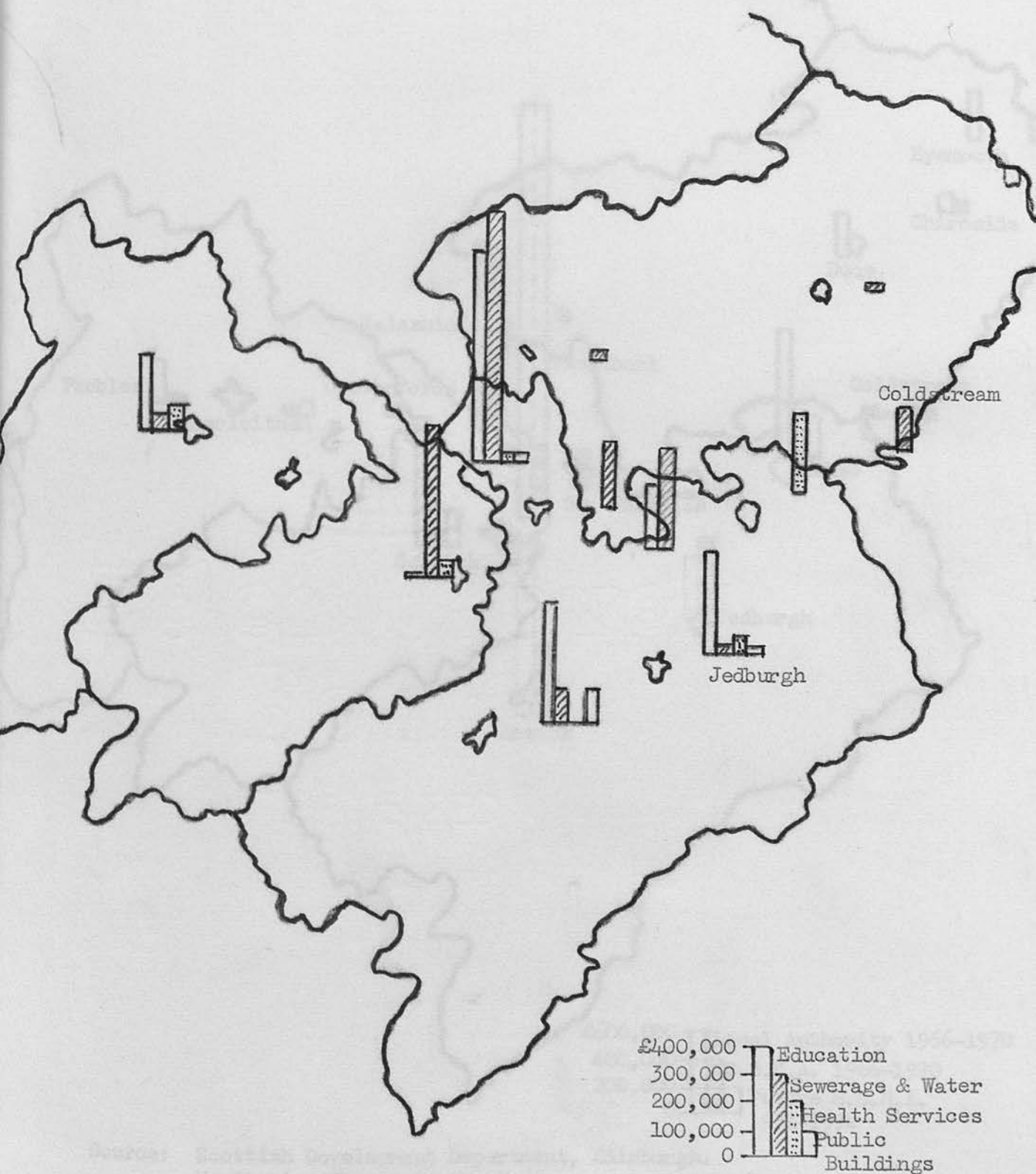
Borders Public Services: Total Expenditure 1966-1970



Source: Scottish Development Department, Edinburgh.
Monitoring Change in the Borders. An internal
 report prepared by Paul Gregory, 1971.

Figure F6

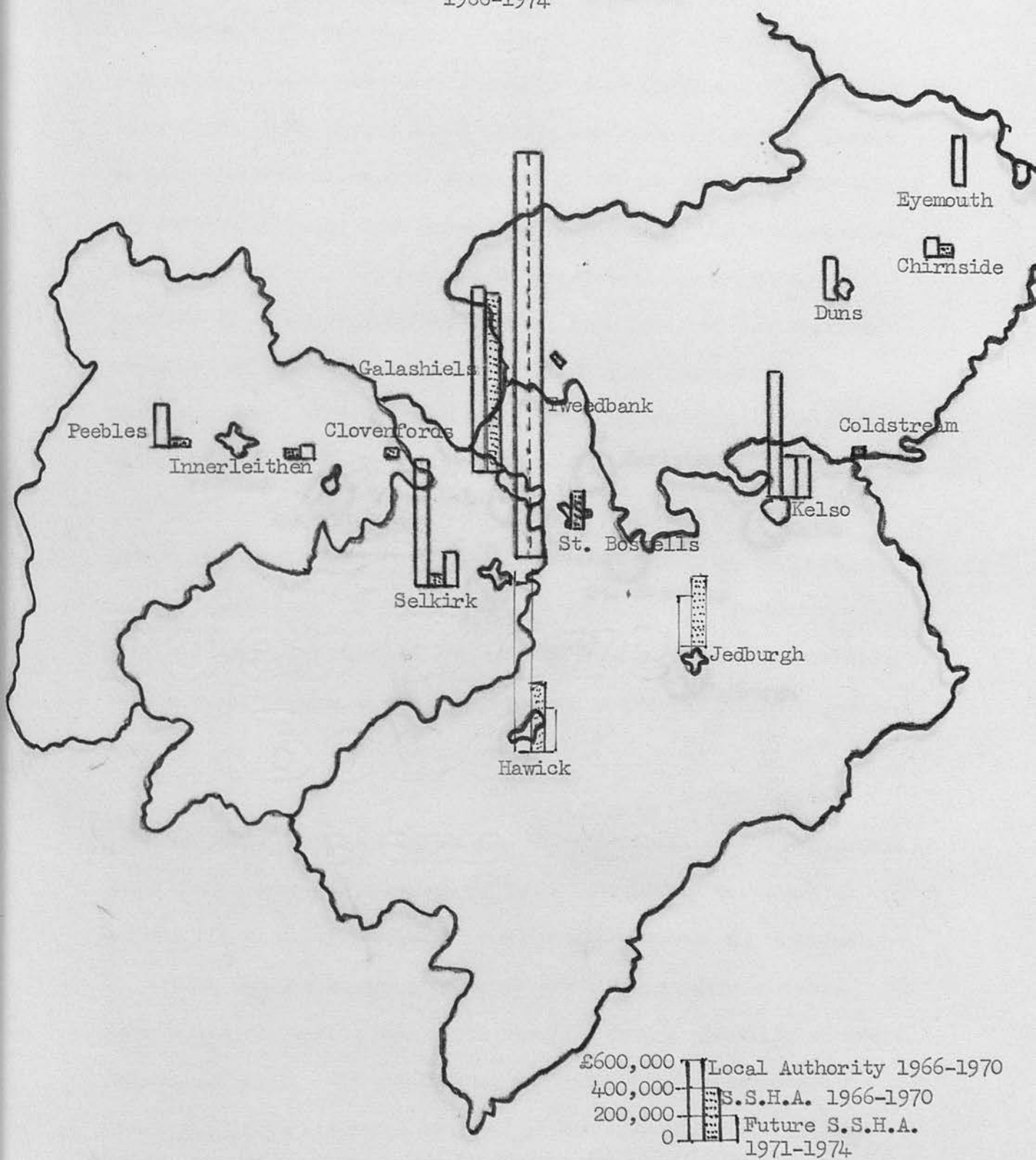
Borders: Planned Expenditure 1970-1974



Source: Scottish Development Department, Edinburgh.
Monitoring in the Borders. An internal report
 prepared by Paul Gregory, 1971.

Figure F7

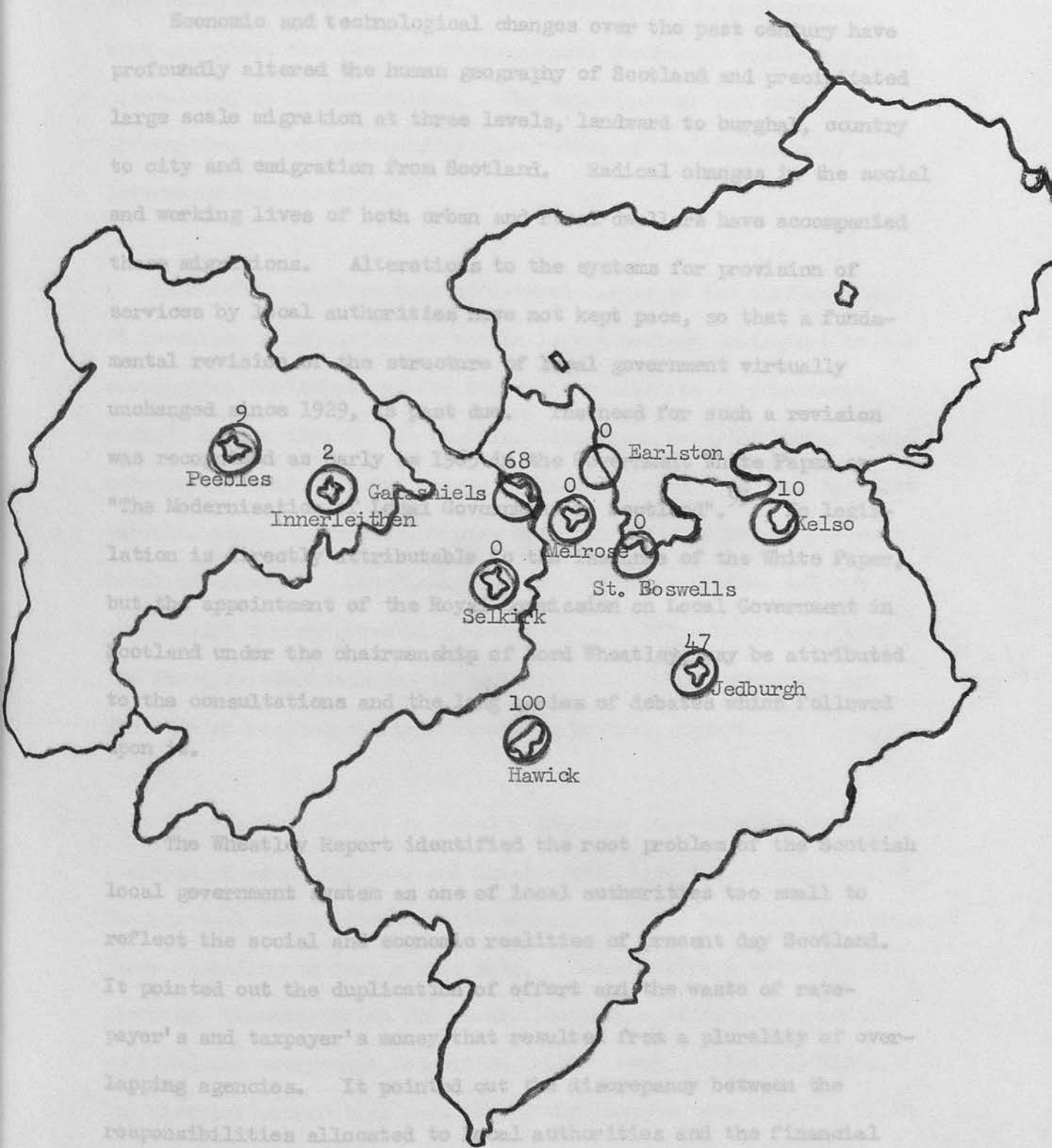
Housing Loan Consents Approved and Projected in the Borders
1966-1974



Source: Scottish Development Department, Edinburgh.
Monitoring Change in the Borders. An internal
report prepared by Paul Gregory, 1971.

The Restructuring of Local Government in the Borders
Figure F8

Acres of Committed Housing Land Added by Article 8
The Wheatley Report or Amendment - Borders 1967-1971



Source: Scottish Development Department, Edinburgh. Monitoring Change in the Borders. An internal report prepared by Paul Gregory, 1971.
H.M.S.O., Cmd. 2067, 1963.

The Restructuring of Local Government in the Borders

The Wheatley Report

Economic and technological changes over the past century have profoundly altered the human geography of Scotland and precipitated large scale migration at three levels, landward to burghal, country to city and emigration from Scotland. Radical changes in the social and working lives of both urban and rural dwellers have accompanied these migrations. Alterations to the systems for provision of services by local authorities have not kept pace, so that a fundamental revision of the structure of local government virtually unchanged since 1929, is past due. The need for such a revision was recognised as early as 1963 in the Government White Paper on "The Modernisation of Local Government in Scotland".⁹³ No legislation is directly attributable to the issuance of the White Paper, but the appointment of the Royal Commission on Local Government in Scotland under the chairmanship of Lord Wheatley, may be attributed to the consultations and the long series of debates which followed upon it.

The Wheatley Report identified the root problem of the Scottish local government system as one of local authorities too small to reflect the social and economic realities of present day Scotland. It pointed out the duplication of effort and the waste of ratepayer's and taxpayer's money that resulted from a plurality of overlapping agencies. It pointed out the discrepancy between the responsibilities allocated to local authorities and the financial

⁹³ Modernization of Local Government in Scotland. Edinburgh, H.M.S.O., Cmnd. 2067, 1963.

resources they possessed to fulfil them, particularly with respect to planning and the implementation of plans. It pointed out the increasing dependence of local government on the central government and posed the question whether local government was worthwhile maintaining as an institution. The Report answer was strongly affirmative albeit recognizing that reform of the structure of local government was essential.⁹⁴

Reference has been made at several points to the difficulties of research, planning and provision in the Borders consequent to the overlapping jurisdictions for the various branches of government work. At the time of the Wheatley Commission study inquiries were underway in many of these areas, notably the water service, the fire service, planning, health, social work and the staffing of Scottish local government. The findings of all of these studies and the legislative changes resulting therefrom were taken into account by the Wheatley commissioners and are reflected in the structure and division of responsibility recommended in their report.

The Wheatley Report proposed a two-tier structure for Scotland composed of seven regional and thirty-seven district authorities. The regional authorities were to administer those services involving large expenditures over a wide area. These included strategic planning, transportation and roads, industrial development, house building and management, education, social work, police and fire. The district authorities were to plan and develop the services which contribute directly to local health and welfare including local

⁹⁴Royal Commission on Local Government in Scotland 1966-1969.
Edinburgh, H.M.S.O., Cmd. 4150, September, 1969, p. 1.

planning, environmental health, housing improvement, clean air, building control, amenity and recreational facilities. The Borders were included in the proposed South East Region as a second-tier authority.

The Wheatley Report recognized the uniqueness of the Borders and their special problems, but argued that a more important consideration was their small population, too small in the view of the commission, to support the major services.⁹⁵ The commission argued that the lack of a regional centre, the narrowness of the employment base, the emigration of young people and the unbalanced age structure were problems which the Border counties would not be able to solve by themselves. The logical and actual regional centre for most Borderers is Edinburgh, the commission argued, as is shown in such matters as newspaper circulation, retail trade and attendance of Border students in further education establishments. Thus the commission concluded that the Borders were not a viable top tier unit by themselves and should be included as a district in a region taking in all of south east Scotland.

The commission did see fit to append a caveat, however. They acknowledged that, for economic planning purposes, Berwick-upon-Tweed and a portion of Northumberland should be considered with the Borders. Hence, if a constitutional change should come about to include this area within the borders of Scotland, a recommendation beyond the remit of the commission, the Borders thus enlarged, would warrant consideration as a top tier authority and would justify a review of the commission's recommendation.

⁹⁵Ibid. p. 184.

The part of Northumberland referred to by the Wheatley Commission has a population of about 22,000. In view of the qualifications implicit in the commission's arguments with respect to the uniqueness of the Borders, this reservation of possible regional status contingent on the addition of a population of 22,000 and a minor regional centre, suggests an ambivalence concerning the assignment of district status to the Borders which is remarkable in the light of their arguments and decision for the Highlands and Islands Region.⁹⁶ It implied that the decision need not be final, that regional status might still be argued for the four small counties.

The White Paper on the Reform of Local Government in Scotland⁹⁷

In February of 1971 the Secretary of State for Scotland presented a White Paper to Parliament setting out the conclusions of the Government on the main issues raised by the earlier reports. The White Paper of 1971 provided for further consultations on the detailed aspects of reform, but set down the immutable decisions^{*} of the government on the basic structure and the allocation of the principal functions. The Wheatley proposals provided the foundation for the system laid down in the White Paper. The two-tier structure proposed by the Royal Commission was accepted, but considerable flexibility was introduced. The number of districts was increased to 49 and the districts were assigned a larger role in the provision

⁹⁶ Ibid. pp. 176-181.

⁹⁷ Reform of Local Government in Scotland. Edinburgh, H.M.S.O., February, 1971. Cmd. 4583.

^{*} Not quite immutable as subsequently proven. Fife won regional status and the island groups won 'most purposes' status.

of services, notably in relation to housing. Most importantly, the number of regions was increased by one, the Borders Region.

Although the proposed new region fell far below the minimum population threshold suggested by the Commission as essential to the implementation of major regional services,⁹⁸ the Government position was that the special character and distinctive problems of the Borders warranted a separate approach and they noted that recent initiatives within the Borders gave evidence of a local determination to solve by joint effort the shortcomings which stand in the way of further development. They thus concluded that the needs of the four counties would best be served by a Borders regional authority even though joint arrangements with the South-East Region were deemed necessary to provide adequate police and fire services and perhaps the more specialised educational and social work services.

One more divergence from the general plan was made in deference to the smallness of the Borders Region. Local planning, building control and libraries were assigned to the regional authority rather than to the districts.

The New Scottish Local Authorities: Organisation and Management Structures⁹⁹

One month after the publishing of the Government White Paper of February 1971, a meeting was convened between the Secretary of State

⁹⁸The Wheatley Report concluded that a population of 200,000 or more was necessary. op. cit., p. 169.

⁹⁹The New Scottish Local Authorities: Organisation and Management Structures. Report of a working group appointed by the Scottish local authority associations, Edinburgh, H.M.S.O., 1973.

for Scotland and representatives of the four Scottish local authority associations.^{*} A report, "The New Scottish Local Authorities: Organisation and Management Structures" is the direct outcome of decisions taken at that meeting to study the organisational problems which will face the new authorities. The report sets out recommended structures of management at both elected member and officer level including internal arrangements, and recommends patterns of organisation for each type of authority to be established. The report was presented to the Secretary of State for Scotland and the local authority associations in September of 1973.

The working group appointed by the Scottish local authority associations began with the remit to recommend organisation and management structures to fit the Local Government (Scotland) Bill then before Parliament. It found, however, that some of the statutory provisions imposed constraints on the types of structure, allocation of functions and committee and officer arrangements, which made the realization of the objectives stated in the White Paper difficult.¹⁰⁰ Planning was cited as one function in which co-ordination is complicated by the division of responsibilities for major and local planning between the region and the district and the allocation of related functions such as social work and housing to different levels. A corporate approach is recommended as the system most likely to contribute to the unity deemed essential to the overall planning process.

¹⁰⁰ Ibid. p. 7.

^{*} Association of County Councils of Scotland, Convention of Royal Burghs, District Councils' Association for Scotland, Scottish Counties of Cities Association.

A corporate approach, as envisaged by the working group, implies the establishment of a central co-ordinating body for each authority with the responsibility to prepare for council deliberation the fundamental objectives which the council should aim to achieve, to chart the directions, priorities and commitments of resources that should guide the council's decisions in pursuit of these objectives and to review the performance of other committees as against the stated aims and objectives of the council. The title of Policy and Resources Committee is suggested to ensure that policy recommendations will not be made without reference to the resources necessary for their implementation.

Since the Policy and Resources Committee is intended to facilitate the work of the council and its various committees and not to usurp their responsibilities, the ultimate power of decision must remain with the council.¹⁰¹ To guarantee the functioning of the authority according to democratic principles the working group stressed the importance of the involvement of both elected members and officers at every stage of the management process, but cautioned against separating the elected member's managerial duties from his constituency role. Nor was the policy and resources committee intended to interfere with the direct access of the service committees to the council.¹⁰²

For every authority the working group recommended that a chief executive be appointed to lead an "officers' management team".

¹⁰¹ Ibid. p. 17.

¹⁰² Ibid. pp. 17-20.

It recommended that the chief officer's authority over all the other offices be clearly defined and that he not be assigned direct responsibility for any department, although it recognised the possible necessity for such an assignment in the smaller authorities. It would seem reasonable to assume that the working group here accepted that the chief executive of the Borders Region, the smallest of the Scottish regions and smaller than a third of all the proposed districts, could be expected to head a department in addition to his responsibilities as chairman of the management team. But this assumption would fail to appreciate the burden of planning, co-ordination and implementation the working group vested in this officer at the regional level. Despite the small size of the region the range of duties of the senior officer is so heavy that the imposition of double responsibility appears unreasonable.

The Local Authorities Working Group recognized the burden of responsibility carried by the chief executive in a recommendation that he be provided with a support staff in the form of an "executive office" in the larger authorities.¹⁰³ Initially (para 4-32), the group did not appear to see the necessity for an executive office in the smaller regions, but at a later stage in their report (para 8-27), a smaller version of the executive office consisting of directors of finance and administration, is included in the officer structure for the Borders and four other smaller regions and for the larger districts. If the chief executive requires two deputy executive officers to properly

¹⁰³ Ibid. p. 24.

co-ordinate and review the operations of the various departments under his authority, then surely he cannot also be expected to act as the chief officer of one of these departments as well.

It is of interest to note that the Scottish Border Local Authorities Joint Committee, established to plan the changeover to regional government, concurred in this view. They assigned no major departmental responsibilities to the chief executive. At the same time, they recommended that he have no formally designated deputy and that the executive office be restricted to a project co-ordination unit, a secretarial service and a small number of Personal Assistants.¹⁰⁴

Although a considerable body of opinion existed favouring the changeover to a regional form of government, the loss of local councils and committees was not accepted without protest by all Borderers. Many believed that the new system would remove government further from the average citizen, reduce his voice in local decision making, increase governmental dependence on the civil service, increase the bureaucracy and prove more costly. For these people, the establishment of regional government meant a reduction in the level of democracy they had always known. They raised valid arguments which were answered in traditional terms; potential economics, elimination of duplication, co-ordination, control; reduced access to government was justified by reference to anticipated efficiencies in control and costs. It will be some years

¹⁰⁴ Scottish Border Local Authorities Joint Committee, District Advisory Committees. Recommendations. Council Offices, Newtown St. Boswells, March, 1974.

before the success of the Borders Regional Council may be fairly assessed. When that is possible, the balance achieved between responsiveness to individual petitions and efficient management will provide one measure of the Council's accomplishments.

The New Local Government Structure

Restructuring was proposed because changes in society, industrial growth, patterns of trade, the growth of unions, educational provision, population mobility, vocational and cultural expectations, had so altered the relationships between local government and the central government, between government agencies, other agencies and the ministries responsible for their direction, between the cost of operation of a wide range of programmes and the government funding available, that the existing system of local government was no longer suited to the task it faced. Local government boundaries did not accord to those of agencies with which they had to co-operate, such as youth and community services, employment offices and the like. Planning was virtually impossible because of conflicting jurisdictions. Development plans were hampered by overlapping authorities, by competition between neighbouring agencies and by the handicap of smallness.

Regional government was proposed to overcome the barriers imposed by insufficient population and contradictory authorities. A two-tier structure was advocated to provide centralized control over a wide area through Regional Councils, with consequent improvements in planning and effectiveness, and local control through District Councils.

The administrative and electoral system in the Borders, prior to 1975, was based on four County Councils, twelve Town Councils and thirteen Landward District Councils. These were:

Berwick County Council,
Coldstream Town Council,
Duns Town Council,
Eyemouth Town Council,
Lauder Town Council,
East District Council,
Middle District Council, and
West District Council;

Peebles County Council,
Innerleithen Town Council,
Peebles Town Council,
Broughton District Council,
Innerleithen District Council,
Linton District Council, and
Peebles District Council;

Roxburgh County Council,
Hawick Town Council,
Jedburgh Town Council,
Kelso Town Council,
Melrose Town Council,
Hawick District Council,
Jedburgh District Council,
Kelso District Council, and
Melrose District Council;

Selkirk County Council,
Galashiels Town Council,
Selkirk Town Council,
North District Council, and
South District Council.

The Borders Region takes in all the administrative areas of these four counties collectively, plus Heriot and Stow Parishes from Midlothian County. It has one Regional Council of 23 members each elected for four years by the electorate of his or her Electoral Division. The Region is sub-divided into four Districts, roughly equivalent, geographically, to the four counties. Each District elects a District Council every four years^{*} as follows:

^{*}All Regional and District Councils were elected first on 7 May, 1974. Regional Councillors were elected for four years. District Councillors were elected for three years in 1974 and in 1977. Thereafter they were to be elected for four year terms.

Berwickshire District Council (for the area formerly the East and Middle Districts of Berwickshire) - 12 members;

Ettrick and Lauderdale District Council (for the area formerly Selkirkshire, the Melrose District of Roxburghshire, most of the West District of Berwickshire, and the Parishes of Heriot and Stow from Midlothian) - 16 members;

Roxburgh District Council (for the area formerly Hawick, Jedburgh and Kelso District of Roxburghshire, approximately) - 16 members;

Tweeddale District Council (for the area formerly Peeblesshire) - 10 members.

The Regional Council has responsibility for education, social work, libraries, tourism, consumer protection, roads and lighting, water, drainage, building control, assessment, industrial development, and town and country planning. The Regional and District Councils share responsibility for museums and art galleries, community centres and recreation. The District Councils have responsibility for housing, environmental health, refuse collection and disposal, cleansing and parks and cemeteries. Because of the small population in the Borders, police and fire protection are administered jointly with the Lothian Region.

Replacement of the County, Town and Landward District Councils by the Regional and District Councils reduced the number of elected members responsible to the electorate. To compensate and to ensure that Regional and District Councils are apprized of the views of all

communities and to establish a communication channel between communities and the two tiers of local government, provision was made for the setting up, from 1976 onwards, of Community Councils within the Districts. The Community Councils are not a third tier. They are advisory and consultative bodies with no statutory duties.

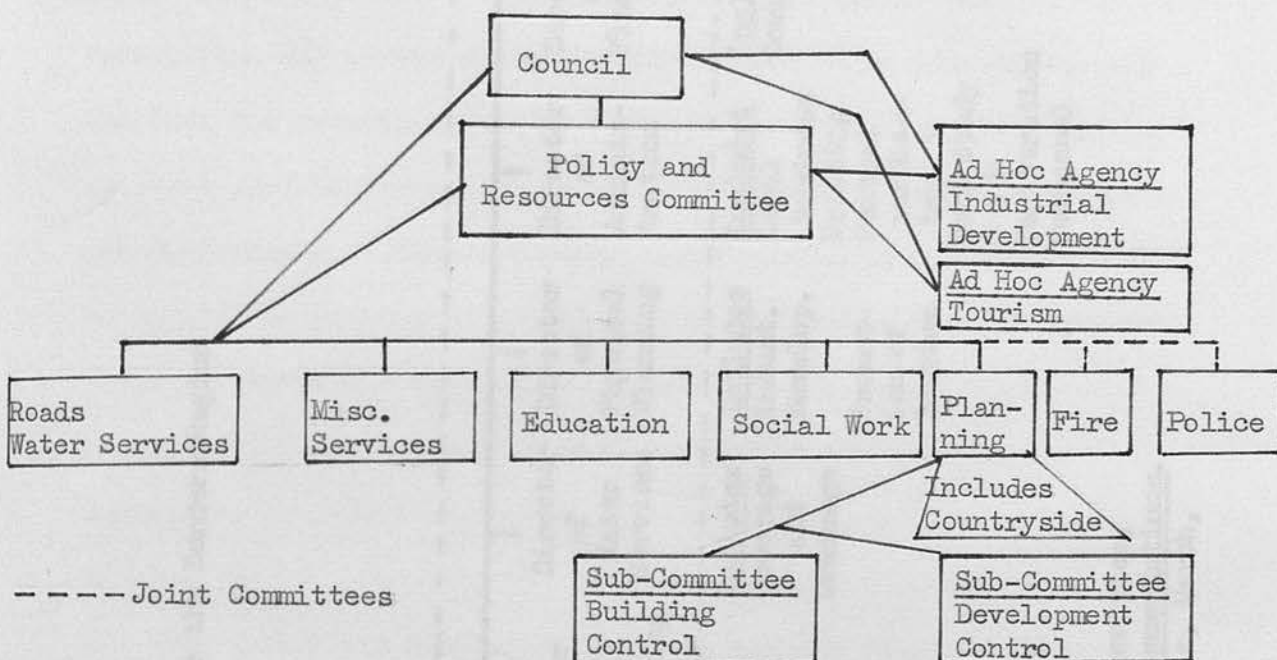
Scottish Border Local Authorities Joint Committee, District Advisory Committees, Recommendations

To prepare for and to plan the changeover from county councils to regional government, a Joint Committee of the four councils, and four District Advisory Committees, was formed. The Committee proposed a series of reports recommending ways in which the new Councils might discharge their responsibilities. Although the recommendations derived in large part from the report of the working group appointed by the Scottish local authority associations, they differ at many points, reflecting the concern of the committees to adapt the new structures to circumstances in the Borders. The Committee and Officer structures which they recommended are shown in Figures F9 and F10.

The structures recommended were designed in keeping with the basic premise that the council was to be the ultimate authority in all matters and was to be a forum, not simply an authorizing body. Sub-Committees were recommended for Development and Building Control because of the large number of meetings required for these purposes.

Figure F9

Committee Structure Recommended for the Borders Region



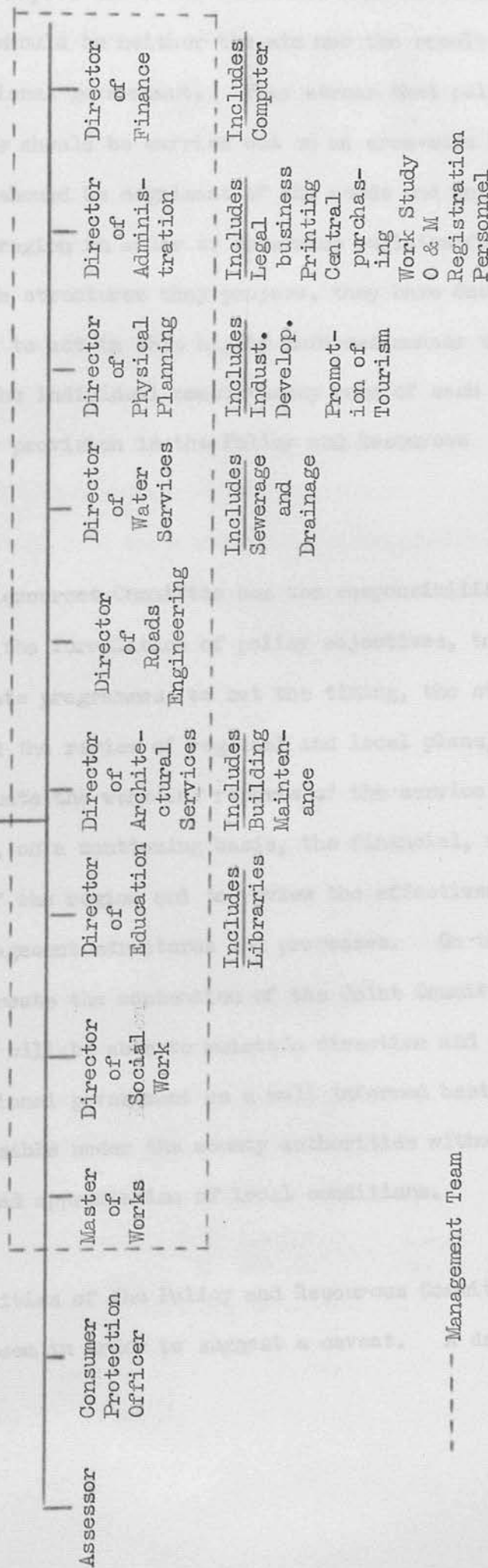
Source: Scottish Border Local Authorities Joint Committee, District Advisory Committees. Recommendations. Council Offices, Newtown St. Boswells, March, 1974. p. 8.

Ad Hoc Agencies were recommended for tourism and industrial development. If this arrangement was not accepted by the new council, however, it was suggested that these responsibilities should fall under the Planning Committee.

The term "Management Team" was designated for the officers' management committee to emphasize the co-operation and mutual understanding of each other's department that should characterize this group. Membership on the team was held to the "Directors" and thus did not include the Assessor or Community Protection Officer.

Figure F10 Officer Structure Recommended for the Borders Region

Chief Executive



Source: Scottish Border Authorities Joint Committee, District Advisory Committees. Recommendations. Council Offices, Newtown St. Boswells, March, 1974. p. 8.

Throughout their report the Joint Committee emphasize that rigid centralization should be neither the aim nor the result of the implementation of regional government. They stress that policy formulation and review should be carried out on an area-wide basis and that the council should be cognizant of the needs and potential of every part of the region in order to determine policies fairly and judiciously. The structures they propose, they have designed to enable the council to act in this highly informed manner without having to sacrifice the individual constituency role of each councillor. The key provision is the Policy and Resources Committee.

The Policy and Resources Committee has the responsibility to guide the council in the formulation of policy objectives, to set priorities, to initiate programmes, to set the timing, the stages of implementation and the review of regional and local plans, to co-ordinate and evaluate the work and reports of the service committees, to audit, on a continuing basis, the financial, manpower and land resources of the region and to review the effectiveness of organization and management structures and processes. On this comprehensive remit rests the contention of the Joint Committee that the Regional Council will be able to maintain direction and control of all facets of regional government on a well informed basis more readily than was possible under the county authorities without sacrificing a detailed appreciation of local conditions.

The responsibilities of the Policy and Resources Committee are such that it would seem in order to suggest a caveat. A danger

exists that the workload on each member of the Policy and Resources Committee may well prove too burdensome. So much is expected of this handful of men and women that the task may be beyond individual capacity. If this is so, the direction and control by council that is so essential to the continuance of responsible government, will fall to the management team, and local government will have moved a step closer to government by bureaucracy. Many precedents will be established in the first few years of the new local governments. It is imperative that the council establish its authority over, and understanding of, every aspect of its remit. To do so it will depend on a competent and effective Policy and Resources Committee. Any failure of this body will leave room for the establishment of a precedent of officer control, in effect, a diminishment of democracy.

District Organization

Differences in committee structure and in officer structure at the district level, in the proposals of the four District Advisory Committees are interesting. Each of the four committees put forward a different proposal with respect to a Policy Committee. The Berwickshire Committee considered this committee unnecessary.¹⁰⁵ A Policy and Finance Committee was recommended for Ettrick and Lauderdale.¹⁰⁶ A Finance and Co-ordination Committee, equivalent in the hierarchy to the three other committees responsible to the District Council, rather than at a co-ordinating level between these

¹⁰⁵ Ibid. Berwickshire District Advisory Committee, p. 1.

¹⁰⁶ Ibid. Ettrick and Lauderdale District Advisory Committee, p. 3.

committees and Council, was suggested for Roxburgh District.¹⁰⁷

A policy and Finance Committee, equivalent in the structure to the District Council's two other committees for housing and environmental services, is recommended by the Tweeddale District Advisory Committee.¹⁰⁸ The four recommendations are shown in Figure F11.

In the separate recommendations of the four District Advisory Committees the function of policy determination and review in Berwickshire District is assigned to the District Council. The purpose is to reduce the number of committees. The Committee also advises that Housing and Environmental Services be combined into one committee if practicable.

In Ettrick and Lauderdale the recommendation is for separate Housing and Environmental Services Committees with a Policy and Finance Committee as a co-ordinating body.

Four committees are recommended by the Roxburgh District Advisory Committee with one of the committees, Finance and Co-ordination, providing a co-ordinating, monitoring and review function, basing their advice to the Council on financial considerations rather than on general policy and resource criteria.

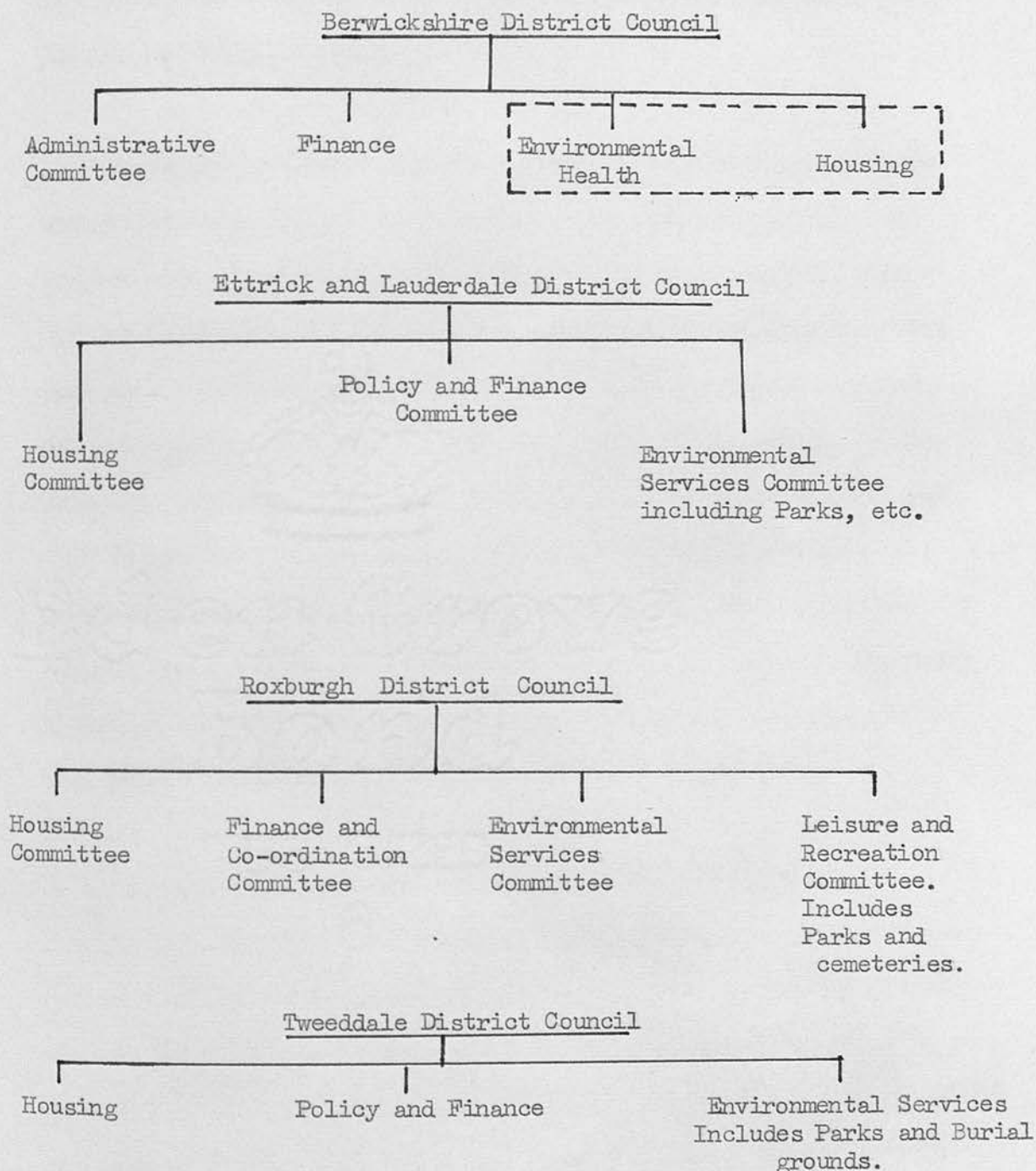
The Tweeddale District Advisory Committee proposes that three committees be set up, for Housing, for Policy and Finance, and for Environmental Services. Unlike the structure for Ettrick and Lauderdale, the Policy and Finance Committee in Tweeddale is not

¹⁰⁷ Ibid. Roxburgh District Advisory Committee, p. 3.

¹⁰⁸ Ibid. Tweeddale District Advisory Committee, p. 3.

Figure F11

Recommended Committee Structures



(Policy may be dealt with by the District Council)

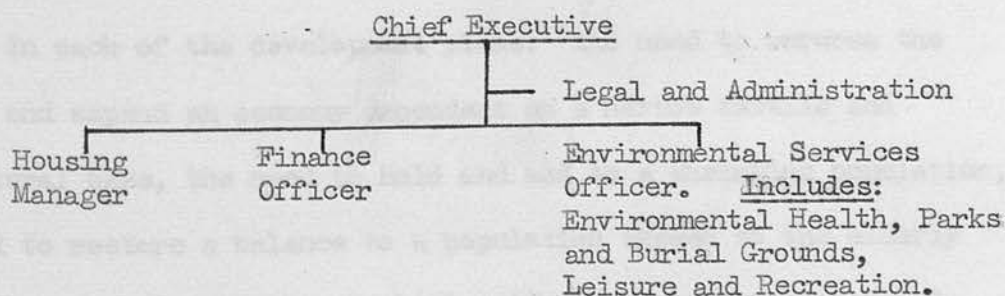
Source: Scottish Border Local Authorities Joint Committee, District Advisory Committees. Recommendations. Council Offices, Newtown St. Boswells, March, 1974.

set above the other two committees. Rather, the Advisory Committee suggests that policy may be dealt with by the District Council. By implication, the Committee appears to recommend that initiation and direction of policy should not fall within the purview of the Policy and Finance Committee.

Differing proposals are put forward by the District Advisory Committees with respect to the role of the Chief Officers. For Ettrick and Lauderdale and for Roxburgh, it is recommended that the Chief Officer have no specific departmental assignments. For Tweeddale the recommendation is that a Chief Officer be selected who is legally qualified so that, as a part of his duties, he may attend to the legal transactions of the District Council.¹⁰⁹ The Officer Structure recommended, as in Figure 12, interposes a Legal and Administrative Department between the Chief Executive and the Housing Manager, Finance Officer and Environmental Services Officer. In the description of departments this is described as the Chief Executive, Legal and Administrative Department.

Figure F12

Officer Structure for Tweeddale District



Source: Scottish Borders Local Authorities Joint Committee, District Advisory Committees. Recommendations. Council Offices, Newtown St. Boswells, March, 1974.

¹⁰⁹Ibid. p. 3.

There are differences in the recommendations dealing with the collection of rents, administration of parks and playing fields, sanitation and other district functions, some deriving from procedures of the county authorities, some tailored to conditions in the district and some arising from different perceptions of the tasks by the District Advisory Committees. Some of the differences can be accommodated within the regional organization. Others will cause difficulties in the co-ordination of services across the region, in communication and in the establishment of structures of promoted posts. Greater consistency in officer structure and departmental duties will have to be established among the districts or confusion and bickering will result. Nevertheless, an organisation has been structured to deal with the new conception of a Borders Regional Government. Experience will dictate some changes as deficiencies are encountered, but the planning has been well and thoughtfully done and it is likely that this will provide the blueprint for local government in the Borders for many years to come.

Development Plans and Restructuring - Summation

The common threads mentioned at the outset of this chapter are evident in each of the development plans: the need to reverse the decline and expand an economy dependent on a narrow textile and agricultural base, the need to hold and add to a shrinking population, the need to restore a balance to a population skewed to the elderly and the female, an intense parochial pride in one's local area and its history, a determination to preserve the best of the past and present while ensuring future progress, a concern for a leisurely lifestyle in which footpaths and fishing rights are valued. Each plan adhered to a set of priorities which put environmental and

cultural values ahead of economic gains. Each plan recognised the interdependence of communities throughout the Borders Region. Each plan dealt with provisions to accommodate those attracted by new industry, but few advanced specific initiatives to draw new industries to the region. Each plan attempted to prevent the disappearance of small communities threatened by the decline in farming and farm servicing, but few new roles other than as bedroom communities were suggested. Thus the reports represented zoning proposals, and technical working papers for the implementation of zoning, more than plans for economic development. That is not to say that they were not useful studies, but rather that their importance lay in their approaches to development and their analyses of their communities and the problems they faced. The new government departments will benefit from the considerable work of the technical committees in the preparation of their regional development strategies.

The restructuring proposals, by contrast, are pragmatic frameworks and job descriptions for the management of the new Borders Region. The new government and its civil service need only follow the procedures outlined therein.

Chapter 8. Proposal

Placement of the Borders Region on the Jensen Scale of Development

Given the economic and social situation detailed in Chapters II through VI, it will be seen that the Borders Region is more highly developed than Level III communities in the Jensen framework,¹ but not as developed as those in Level IV. It should be kept in mind that no community or region will be an exact fit at any level, but from the overall assessment, the placement on the scale which best suits the Borders' level of development lies between Levels III and IV.

According to the Jensen scheme, in a Level III community 50 per cent of the population make a subsistence living and/or are unemployed and live on aid provided by inside or outside sources. At Level IV just 5 to 25 per cent fit this description. This segment of the population provides no surplus which may be sold outside the community. Of the $\frac{1}{2}$ to $\frac{3}{4}$ of the population that work, 50 to 75 per cent at Level III and roughly 50 per cent at Level IV are employed in the production of goods or services for outside markets. A Level III community has the capacity to invest 7 to 10 per cent of its "Gross Community Product" in educational provision, and has, in moderately good supply, the manpower needed for economic development, and has the expertise to deploy this manpower effectively. Level IV communities, can invest 12 to 15 per cent of their G.C.P. in educational development, have all of the different kinds of manpower needed to maintain Level IV economic development and are able to deploy them well. At Level III, the

¹Chapter I, pp. 60, 61.

transportation, communication systems and power development are adequate for the existing level of economic development, but inadequate to support further development and expansion, while at Level IV there is ample capacity for both present development and expansion.

How well does this accord with the situation in the Borders?

As noted in Chapter III, unemployment has not been high in the Borders because unemployed youths have left the region to search for jobs. This lost population is therefore, a hidden unemployment statistic that should be considered in an evaluation of the regional economy. The 20 per cent of the Borders' population in the retirement age group,² live, in part at least, on aid provided by inside or outside sources. Much of the agricultural workforce, although housed and cared for adequately, receive minimal wages for their work and may be regarded, in Scottish terms, to be living at or near subsistence level. Much of the wool and meat produced on Border farms and almost all of the textiles and electronic components produced in Border factories are exported from the region. Over 50 per cent of the workforce are included in this production. About 10 per cent of the Borders' workforce are employed in professional and scientific services in addition to those in engineering and those in insurance, banking and finance.³ Although this is below the average for Scotland it is more than adequate for present development. Thus the present state of development in the Borders accords with the criteria for a placement between Levels III and IV of the Jensen framework.

²Chapter IV.

³Chapter III, p. 90.

What then, are the implications of this placement?

The sector of the population living at a subsistence level and a shortfall in capital accumulation together restrict the availability of risk capital needed to stimulate the economy. This condition has led developers to import the funding required for their ventures. Concomitant results have been the importation of technology and of management and of absentee ownership. In the process the people of the Borders have lost a large part of the control over their economic future. If this control is to be regained, the capital formation necessary to new investments must come from within the region. A possible source for this wealth is the great estates.

Borders' Advantages as a unique region economically and socially

In many respects the Borders region is a vestige of the past. Elsewhere the huge tracts of land once owned by individuals or families, with their complements of workers and workers' families living in tied cottages generation after generation, have disappeared in the confrontation with modern society, inflation and heavy taxation. But in the Borders the great estates remain and the worth of their holdings increases as land values spiral upward. Now the capital formation they represent is immense and their potential importance to Borders development is at least commensurate with this value. Future development in the region and control of this development may well be determined by the answers the estate owners give to two questions; what kinds of development do they intend to pursue for their estates over the next ten years and what are their visions for the future of the Borders Region?

The import of the answers to these questions must be considered in the context of world-wide social and economic trends over the past thirty years. Traditional economic theory with its reliance on economies of scale has been found wanting in a rapidly changing post-World War II World. It is beyond the scope of this study to detail the arguments of Schumacher⁴ and others in this respect, but suffice to say that in the competition between the giant industrial nations the technology of mass production, has become so sophisticated and so machine-intensive that massive government subsidies, depreciation and tax write-offs have been necessary to encourage private investment. Grave consequences in terms of unemployment and large numbers on welfare have been accepted in the process, at enormous social costs, and thousands of small enterprizes have been sacrificed to the "minimal economic unit" concept. When these costs are added to the costs of production the result is often a negative profit situation.

Technology is today overmatched to many of the tasks it performs and the technology is expensive; expensive in overhead, in subsidies and in unemployment. The high cost of the technology has created the necessity to maintain a high level of production that exceeds reasonable consumption, so planned obsolescence has become an accepted tenet of the mass production economy - and contributes to cost inflation.

Modern technology is expensive, and frequently wasteful, of energy. If energy costs do not price much of present production

⁴Schumacher, E. F. Small is Beautiful. Blond and Briggs Ltd., London, 1973.

out of the marketplace, the need to conserve a dwindling world supply of fossil fuels will surely do the job. Because sources of fuel will no longer be available for major developments, industry will have to look in another direction, to small, labour-intensive units. And the energy shortage will be felt at the national level as governments hoard their stores of oil and other fuels and the balance of industrial power shifts.

Inevitably, alternative sources of energy will be developed, windpower, solar power, tidal and geothermal energy, but the power generation units will be smaller, output limited and transmission restricted. Smaller factories, close to the power source, may once again, as in the days of water-driven mills, become the norm. To a large extent manufacturing may be forced to return to a form of small-scale and cottage industry. Technology will be matched to the task to be performed and manpower substituted for machine power to avoid energy waste. Gradually, large industrial complexes like British Leyland, as redesigns of their production system are necessitated, will relocate portions of their operation in small, dispersed, component plants, perhaps each with its own power source.

Of course it is not to be expected that this changeover will be a quick and easy one. The rationale of mass production is founded on the concentration of the means of production. Engineering problems, co-ordination, costs, social consequences such as the relocation of families, and many other constraints, will prevent a rapid reorganisation. What is described above is just one model among many that will be devised as the need for change becomes increasingly accepted. The changeover to these models will be a slow and erratic process.

Ideally, each of the small, new, energy efficient factories will be located in a separate community in which employees will live within walking distance of their workplace and in which such problems as pollution may be more easily controlled. In many parts of the world the communities so appropriate to this situation no longer exist. In the Borders they are still there.

Paralleling the growth of big business has been the growth of big government. Bureaucracies have grown out of proportion to growth in other sectors of society until support of the service portion of the economy threatens to bankrupt the productive part. This is particularly true in the major cities where the management of utilities and services employs a large fraction of the total workforce. As the cities grow their social problems grow faster still and the social services bureaucracies expand apace.

Again the small communities have been less affected. The smallness of such bureaucracies in the Borders can provide another distinct advantage in a small business economy.

A new economic order - Small is Beautiful

The evidence suggests that the world is on the verge of a new economic age. In such a brave new world, huge corporations will no longer be permitted to despoil resources, waste energy, pollute lakes, rivers and seas, control governments or obtain government funding to guarantee corporate profits. Smaller, labour-intensive, ecologically better plants will replace the wasteful present ones. The age of the megalopolis will give way to a new decentralised society based on small towns and villages. Bureaucracies will

disintegrate as people move back to, live and work in small centres which once again become true "communities" where neighbour cares about and cares for neighbour, where a labour-intensive, land-based economy renders unemployment unnecessary, where families look after their elderly within their communities, if not within their homes. The Borders Region was such a place and has not kept pace with the movement away from this kind of society. It will not have far to go to re-establish it.

A first step - a new "landed" development

If the Borders Region is to become a forerunner of the new society it must still recruit a new workforce. The Borders Build-Up Register indicates that such a workforce is available if jobs and housing can be provided for them. The best possible result, in terms of the new directions, would be the importation of young people from the cities to the rural areas, to presently empty dwellings, to jobs requiring a minimum of outside funding. Such a result is possible. The one pool of empty dwellings in the region is the cottages vacated by farm help on the great estates and on small farms absorbed into larger ones.

Changes in farm operations over the past twenty years have demonstrated that intensive farming can dramatically increase the yield of Borders' fields. The loss of pasturage to ferns and nardus grass and ageing heather illustrates the greater potential that is being lost because of insufficient manpower. The success of reafforestation projects and bush lots attest to the possible profits available in tree farming, especially if full advantage is taken of the wide variety of forest products and forest-based

industries, as in Sweden. Special rapid growth forests for the production of methane gas for an energy hungry world may soon add another profitable string to the estate owners bow. In her great estates the Borders possesses a resource of great promise in the brave new world of energy conservation.

Organization and management of the land units may take a variety

What is envisaged is a new approach to estate management, not a return to the lord and peasant relationship of the past. An estate with large tracts of land, would be managed like a corporation, under highly centralized control. Separate, but co-ordinated operations would administer the many enterprises, mutton and wool production, beef production, fruit, vegetable and dairy production, forest products, methane production from wood and dung, secondary manufacturing, game production and hunting facilities, bed and breakfast and farm holiday accommodations, to name a few. The experience of the cattle and sheep farms of the Central Borders and of the vegetable farms of Berwickshire prove that the region can produce sufficient food to provide export wealth. And Borders' forests will soon contribute to the area's export strength as well.

The first step in the creation of the new economy in the Borders should be the re-organisation of the estates to provide the housing, the jobs, the initial export base for the region, the first stage in the establishment of an introspective social system. This will not be accomplished without investments in housing, in farm and forestry equipment, in processing and manufacturing facilities and in the provision of tourist accommodation. These investments will necessarily be substantial, but will not be of the same order as required for major industrial plants. Government assistance for

housing and for economic expansion should be made available to estate owners and to co-operative associations of farmers who band together to provide a tract of sufficient size to qualify for assistance.

Organisation and management of the land units may take a variety of forms. What is essential is that each of the units be of sufficient size to enable a number of complementary operations to be conducted simultaneously. In the recommended model, each operation would be of a sufficient magnitude to warrant a superintendent who would sit with others of similar rank on a board of management. Where the land unit was a privately owned estate, the owner, or his representative would be chairman of the board and the board would, of course, be an advisory, not a decision-making body. Where the unit was vested in an association, the board would operate as a corporate management board and ownership would be exercised through shareholding or some similar arrangement. Obviously, the participation of estate owners is crucial if landed development is to get an early start on a substantial scale. Government assistance, in the form of incentive grants toward the facilities and equipment required, should play a large part in winning this participation.

Applications of the Principle of an Introspective Community

Communities will be societies in miniature. Each will have its own nursery, surgery, resident nurse or nurse's assistant, and in the larger communities, a primary school, resident doctor and sheltered housing. The emphasis will be on self-sufficiency. Homes for the aged will largely give way to the kinship method of care. Where in-home care is either unsuitable or undesirable,

sheltered care involving a maximum of self help and community help will be employed. Community provided assistance will be supplemented by volunteer help across a wide range of services.

Correctional homes will be resorted to only as a last resort. Wherever possible supervision and guidance will be given in the community and retribution will be paid by offenders through schemes of work.

Mental patients too, except for the few who represent a danger to themselves or others, will be looked after in the community, as far as possible as integrated members.

What can be provided in the community should be provided there. What cannot be provided initially should be looked upon as a target for future local provision.

Throughout the western world the retired segment of the population is growing faster than other groups and this is especially true in the Borders. This non-working segment will soon reach a stage which economies will no longer be able to support. Then the elderly will have to be re-admitted to the workforce. Many want to work now. During the early stages of the re-organisation of the estates there will be a shortage of young labourers. The able-bodied retired could fill this gap and as the number of jobs expands those who wish to continue working will have that opportunity. Job creation may be approached in such a way that part-time work will be an option for the elderly. A labour-intensive, land-based economy will create sufficient jobs to permit this flexibility.

Pressures toward a new economy

The kind of development which can provide sufficient employment of all kinds and sufficient employment of an unskilled and low skill nature will not be provided by capital intensive investment. Capital intensive investment results in greater sophistication of production technology and a shrinking of the workforce. At the same time it increases the costs of production, adds to inflation and puts the products of industry out of the price range of the workers. Labour intensive development offers the only solution to this problem. However, this is not to say that everything must be reduced to manual operations. This will depend on the nature of the task.

Undoubtedly some operations will continue to be more efficiently performed by machines for the foreseeable future. The Mennonite communities of western Canada provide examples of appropriate mixes of machine-intensive and labour-intensive operations for efficient farm management.

Many pressures, at the community, regional, national and international levels will be added to the foregoing to demand a restructuring of employment and of society to give people a chance to work and often, to work at low technology jobs. Other pressures will demand that the work be non-polluting and that it not destroy finite resources. Others will demand a reduction in non-productive jobs, a diminution of bureaucracies. In sum, pressures from many sources will demand a return to small, clean businesses in small, safe communities. The Borders is able to adapt to this arrangement easily.

Because the cost of petrol will be too expensive to permit a great deal of travel, commuting to work will be drastically curtailed. People will have to walk to work and walkways will be needed.

Borders' towns are so laid out that all parts are usually within walking distance and walkways are already there or are planned.

Thus the town structures lend themselves to this kind of development.

Workers on the projected farms would live in housing provided there, as far as practicable. Where transport of workers is required, this should be provided by mini-buses operated by the farmer or firms, to reduce the necessity for individual transport.

A great deal of mutual support will have to be provided within the communities. This is the tradition in the Borders. Many service organisations already exist and Borderers generally offer their help through auxiliaries, women's institutes, volunteer drivers, young farmers organisations and a host of other voluntary bodies. Thus the social structure of the Borders is sufficient to the task.

The infrastructures needed to accommodate the small factories or the exploded component plants of a large industry have disappeared as villages across Britain died over the past one hundred years. Not so, in the Borders. The settlement pattern in the region today remains largely what it was a century ago and there is slack capacity in the infrastructures which could accommodate new industry.

Since the communities will be small there will be some things they will not be able to provide for themselves. Some amenities such as museums and theatres, some aspects of health care, education and the distribution of goods and services will have to be shared with other centres. But this does not imply that life in the villages will be at a rudimentary level. The only reason that there is not a high level of subsistence in Borders villages today is that there is insufficient population to support the services necessary.

How did the present situation evolve?

Once the region was highly prosperous. Then, during a difficult period for both agriculture and textiles the young men moved away to seek jobs elsewhere. The factories turned to women workers to take their places. The farms mechanized. More young men were put out of work. They too moved away, many of the young women followed and the towns could not provide a sufficient workforce for the factories. At the same time the elderly began a counter trek until today the workforce is depleted and dominated by low wage earners, the age-sex balance is skewed to the elderly and the female, and the region remains at a subsistence level.

This situation has prevailed for some time, so long in fact that Borderers have adopted a standard perspective concerning their economy and prospective development. They like their environment and their life style enough that they do not want too much change. They recognize that the long rundown of their economy has depleted capital resources in the region so that capital accumulation necessary to new enterprises is nonexistent within the Borders. Yet they have no specific plans for indigenous development, only

plans to accommodate new development. Thus they have conditioned themselves to looking for the importation of new industry and new capital from outside the region.

The textile industry is still declining, but it is still the major employing industry by far. A more fundamental change is needed than simply the relocation of industry from elsewhere. This system has produced little benefit at great cost.

But one industry has improved. Despite a massive depletion of its workforce over the past century, agriculture in the Borders has gained renown for the improvements in the quality of its sheep and cattle, for the greater yield derived from its fields and for innovative ventures in fruit and vegetable growing and marketing. Borders farmers have also experimented successfully in tree farming, in catering to tourists and in the creation of a business based on grouse shooting. Agriculture has been the sole area in which indigenous development has occurred, and it has been notably successful. Future development should begin from this success.

The diversification of large farm units, already described, is one aspect of land-based development. A second aspect is the encouragement of agro-industries, that is, industries built upon the produce of the land. Present plans call for a horizontal form of development, a diversification of the present manufacturing base. Agro-industry is characterized by vertical development, i.e., a cattle farm supplying a slaughterhouse operation, supplying a beef processing plant, supplying a tanning factory, supplying to leather crafts, supplying to marketing agencies. This example might be

multiplied by a dozen or more such vertical chains stemming from different farm, forest or tourist operations. A decision to opt for landed development does not require a rejection of industrial development. As Donaldson puts it:

To choose between urban industrialization and rural agriculture is false. For one thing, the industrial and agricultural sectors are deeply interdependent, with the success of each depending on the prosperity of the other. The concept of rural development takes the interdependence a stage further - for it involves shifting the locus of industry out of the squalid and socially expensive urban complexes and into the countryside itself. It aims at reducing the traditional dependence of the rural areas on a few primary products by diversifying production into a host of labour-biased non-agricultural activities.

The range of possibilities which could be opened up by such an approach is indicated by some examples taken from the discussion by Griffin and Enos of ways of 'industrialising agriculture'. They stress the point that 'the provision of food transformation industries is anyway often an essential element in a programme of agricultural change'. Expansion of the output of tomatoes, for example, might be wasteful unless a canning factory were near by to prevent spoilage. Investment in a dairy herd might be unprofitable unless a farm has access to milk, butter, cheese and ice-cream industries. Production of sugar-cane would be more rewarding if a refinery were available. An increase in pig-raising would be difficult without a slaughter-house and a meat-packing industry, etc. Industrial investment, far from being an alternative to agriculture, may in some cases be highly complementary to it. There are also considerable opportunities for developing industries which provide inputs to the agricultural sector. Modest establishments to manufacture and repair simple agricultural implements will be required at first. Later, more complex machinery and metal working industries will be needed to provide such things as motor-drawn rakes, and eventually tractors. A quite separate industrial complex could be based on the chemical industry and the provision of fertilisers. A third complex could focus on supplying the sector with fuels and other petroleum products

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⁵Donaldson, Peter. Worlds Apart: the economic gulfs between nations. British Broadcasting Corporation, London, 1971, pp. 93, 94.

Internal quote, Griffin, K. B. and Enos, J. L. Planning development. Addison-Wesley, 1970, pp. 139-140.

Decisions favouring agro-industrial development will, at the outset at least, be political ones. The Regional Council, through its Policy and Resources Committee, must first be convinced that such a programme is not only viable, but affords the best opportunity for future development in the Borders. It will then be up to the Council to provide the incentives to farmers and estate owners to reorganize and expand their operations to initiate the development. The traditional Border concerns for protection of the ecology and preservation of the villages will provide a strong inducement to make this choice. A comparison of costs between agro-industrial development and the development of manufacturing industries should also be persuasive.

What do existing development plans envisage?

Present plans assume that development plans in the Borders must be based on the importation of industry from outside of the region. This lays a heavy burden on the communities that are to receive the new plants. Where water, sewerage, power, roads, accommodation and all the many forms of infrastructure that must be provided are inadequate to the new demands, they must be installed. The cost of these services is so great that even long term benefits may never equal the initial outlay. Studies by development officers, like that of Knowles, for Berwickshire,⁶ recognize that the capabilities of Borders villages to carry industry are very small and that additions to their infrastructures might lead to degradation. The question must be asked whether these kinds of

⁶ Knowles, Basil, County Planning and Development Officer.
A Rural Policy for Berwickshire. County Offices,
 Southfield Lodge, Duns.

proposals are realistic in terms of costs and benefits or in terms of risks and benefits, in view of world wide and particularly British trends.

If there is to be any development which is indigenous and in step with world wide trends, it may be that industrial development will be downgraded and agricultural development emphasized. Agricultural development has proceeded well, output per hectare has increased remarkably in recent years, but now it may have to take a new form and balance its capital and labour inputs. It may now have to cut out the costly high energy using equipment and become labour intensive. There seems little doubt that the world will have to move in this direction, soon. If the Borders Region chooses it now, it will be in the forefront of the trend and will benefit by this leadership. In the changeover there will be many jobs and many opportunities created.

The Role of Education

The Borders Region is in a period of searching, a searching for new directions. At such a time education assumes a greater than usual importance. The educational system must be capable of adapting to changed circumstances and of providing personnel with the knowledge and skills necessary to the new tasks created. This is the role prescribed for education at Levels III and IV in the Jensen framework.⁷

⁷Jensen, Gale Edward, The Educational Development of Human Resources for Community Economic Development. Occasional Paper Two, School of Education, The University of Michigan, Ann Arbor, 1974.

Outreach, nonformal education plays an important part in economic development according to Jensen. He stresses that an economy that has stagnated and declined has suffered from a lack of vision and initiative on the part of its high level teachers, engineers and professionals. The key to maintaining and improving the knowledge and skills of this group is continuing education. It is also the main educational means for retraining technicians and sub-professionals whose occupational roles become obsolete because of technological change. Outreach, nonformal education also has the greatest potential for providing the subsistence-unemployed sector of the population with vocational and literacy-basic education and with social training aimed at improving the quality of their personal and family living.

Paulson describes nonformal education as:

-- structured, systematic, nonschool educational and training activities of relatively short duration in which sponsoring agencies seek concrete behavioural changes in fairly distinct target populations. It is, in sum, education that does not advance to a higher level of the hierarchical formal school system.⁸

It will be seen that this includes in-service training, which is treated separately in this paper. His description is then, an adequate operational definition for the combined nonformal and in-service components in this study, except for its somewhat more restrictive insistence on structure.

Level III and IV communities must sell goods and services to external markets in order to expand. Their products must therefore

⁸ Paulson, Richard G. (ed.) Non-Formal Education: An Annotated International Bibliography. Praeger Publishers, New York, 1972, p. ix.

be of sufficient quality to compete successfully in those markets at a price that will assure a reasonable profit. The maintenance and improvement of the competitive position of these enterprises is dependent on the expertise and skills of the persons they employ. On-the-job, in-service training is essential to the continuous up-grading of these competencies, without which the community will be unable to compete in the world wide rivalry for progressive development and will slip backward into economic decline.

Community education, as frequently defined, specifies the dissemination of information, frequently to disadvantaged groups, to help people to make decisions concerning where and how they will live, sanitary and other health precautions they should follow, and information on such subjects as birth control. In this study it refers as well, to programmes devised in co-operation with individuals and groups in a community, programmes loosely structured to permit frequent digressions, open to all, concerned with issues of local concern, which may lead to new social or political awareness and informed social action. In this second context it overlaps non-formal education, particularly in personal-family management training and community programmes of the less structured kind not covered by Paulson's definition. It is generally judged to be important in reverse proportion to the level of development of the community being evaluated. Jensen disagrees with this theory, as noted in Chapter I.⁹ The rapid increase in knowledge in pure and applied sciences and the constant progression of new technologies stemming from these advances result in repeated dislocations of businesses,

⁹Chapter I, pp. 63, 64.

jobs and families. The more developed the nation or region, the more frequent are these disruptions. Since the formal school system is unable to adjust suddenly to a radically different concept or approach, adult and community education must provide the vehicles for rapid adaptation, in highly developed communities as well as primitive ones.

In fact, the potential of community education to contribute to the economic welfare of an area is probably greatest at the upper end of the development spectrum. Level IV communities must be especially sensitive to the need for community reorganization. The people of Level IV communities must be kept informed and prepared to adapt to spontaneous socio-economic changes which continuously occur in technologically advanced societies. Mechanisms must be devised to respond to these changes to bring about internal adjustments and re-organizations that will maintain an environment supportive to complex, highly productive economies. Failure to make these adaptations will precipitate social problems which will restrict economic development. Investments in community education must therefore be accorded a high priority.

Communities at a Level III stage of development must be "readied" for the community re-organization necessary to the "take-off" conditions for advancement to Level IV development status. The "readying" programme being related to population, migration, public health and social factors specific to the community, it is obvious that community education is of crucial importance in the preparation of Level III communities for this major advance.

A sophisticated system of formal education is so obviously a characteristic of highly developed nations that the true contribution of other educational forms is often missed. On the other hand, the social imperatives for the provision of formal education are of such a peremptory nature that the economic logic for the investment is just as often ignored. It is important to put both in perspective.

Level III and IV communities must provide literacy and basic education for all their young people for two reasons. Firstly, the formal educational system, as a socializing agency, can develop the behaviours required for participation in the planning and organizational activities required for the successful operation of major economic enterprises. Secondly, it can build the reservoir of skilled human resources, particularly those of a pre-professional and professional nature, capable of supplying the manpower needed by an advancing community and of efficiently maintaining the operation of an advanced economy.

The objective of educational investment in Level III communities should be to get the "big lift" in human resources necessary to the achievement of Level IV advantages. The objective at Level IV should be the achievement of a balanced supply of educated and trained personnel of the right kinds and in the numbers required to maintain existing development and to generate and take advantage of technological innovations and new markets.

Educational Investment - Jensen Allocations

To achieve these objectives, Jensen proposes that the optimum balance of investment for Level III communities would be as follows.

Thirty per cent of the available resources for education would be allocated to outreach, nonformal education. Half of this would be directed to the subsistence-unemployed segment of the population for basic, vocational and personal-family management training and half would be directed to maintenance, upgrading and retraining programmes for three groups, professionals, under-educated employed workers and educated adults whose competence is presently in over-supply. Thirteen to fifteen per cent of the available educational budget would be allotted to on-the-job, in-service training to improve the skills of people working for businesses whose success in catering to external markets is marginal. The survival of every enterprise of Level III communities is of importance, particularly at the stage of expansion that leads to Level IV status. Community education would be allocated 2 per cent of the total investment. If population size, migrations, public health and community re-organization are not effectively managed, the advance to a Level IV economy will be retarded. As a favourable combination of these factors does not normally occur spontaneously, community education must be utilized to foster the awareness and skill that will create the appropriate climate. Finally, formal education would be assigned 55 per cent of the educational budget. This would be divided one-third to elementary or literacy-based education emphasizing high competence in mathematics, science and industrial arts, one-third to secondary education emphasizing vocational training and one-third to the development of professional and advanced technical schools.

For Level IV communities the objective is to maintain a high level economy rather than to reach it, hence the distribution of

the educational budget reflects a somewhat different set of priorities. Jensen proposes that the optimum balance of investment would be as follows. Forty per cent of the available resources for educational development would go to outreach, nonformal educational programmes. The continuing education of high level professionals would account for approximately half of this percentage. Twenty-five per cent would be directed to re-education and conversion programmes for those educated to an advanced level, but whose knowledge and skills are becoming technologically obsolescent or in oversupply. The fourth 25 per cent would be allotted to the subsistence-unemployed segment of the population for basic, vocational and personal-family management training. On-the-job, in-service training would be allocated 15 per cent of the educational budget, but by contrast to Level III allocations, just half of this would be slated for the improvement of the skills of employees of firms in danger of losing their external markets. The other half would be used to re-train workers whose jobs are likely to become obsolescent because of changing technology. Community education would be allocated 5 per cent of the total educational investment to ensure that populations are properly prepared for necessary community re-organization and informed of the implications of the changes for the future economic welfare of the community. Formal education would be allocated 40 per cent of the resources assigned to education. Its remit would include universal literacy and basic education for children of elementary school age and general and vocational training for 70 to 100 per cent of the secondary school population. The basic education programme should provide a high standard of instruction in mathematics, science and industrial arts. Outreach, nonformal education may be substituted for formal secondary education where

appropriate and indeed may be preferable for the segment of the adolescent population that wishes to leave school for full time employment at an early age. At the higher educational level formal education should provide for general collegiate and professional school training for a sufficient proportion of the population (probably 20 to 25 per cent) to ensure enough high level manpower to maintain the economy at the highest level of development.

The Jensen Allocations as they relate to the Borders Region

The Borders Region falls between Levels III and IV of the Jensen Framework so that neither set of allocations for educational investment are quite appropriate to the region's present state of development. To establish the fit of the Jensen allocations to the region it is necessary to review data presented in earlier chapters and to tailor the allocations to this data.

The Jensen allocations suggest 30 per cent of the educational budget be directed to outreach, nonformal education at Level III and 40 per cent at Level IV. This investment is slated for basic, vocational and personal-family management training for the subsistence unemployed and for up-grading professionals and the under-educated employed and the retraining of educated adults whose knowledge and skills are in over-supply. In the Borders the unemployed represent a small fraction of the work-age population.¹⁰ Then too, professional and intermediate occupations are under-represented in the Borders.¹¹ So the investment required to

¹⁰Chapter III, p. 85.

¹¹Chapter III, p. 112.

service these three groups need not be as large in the Borders as in other areas at the same development level. There are, however, large numbers of workers who quit the formal education system when they reached the minimum school leaving age. These people need additional education and training to enable them to move easily into new occupations or to advance in their present ones. On balance, an allocation of 30 per cent of total funds available for education should be allotted to outreach, nonformal education. About 25 per cent of this investment should be directed to basic, vocational and personal-family management training for the subsistence unemployed. Twenty-five per cent should be devoted to continuing education for professionals and the retraining of educated adults whose knowledge and skills are in over-supply, and 50 per cent should be devoted to the up-grading of the under-educated employed.

On-the-job, in-service training is assigned 13-15 per cent of resources available for education, at Level III, according to the Jensen formula, and 15 per cent at Level IV. This portion of the educational budget is intended for the up-grading of skills of persons holding jobs in economic enterprises whose competitive positions in external markets is somewhat tenuous and for the re-training of employees whose jobs are likely to become redundant in the near future. Almost 40 per cent of the male workers in the Borders were classified as skilled workers and 31 per cent were classified as semi-skilled in the 1966 census.¹² These groups are the major occupational resource of the Borders Region. But the textile industry is undergoing large scale rationalization and

¹²Ibid.

the new industries attracted to the region require skills quite different from those of the hosiery and woollen mills. A major effort is needed to prepare the skilled and semi-skilled workers for the new jobs in the textile mills, electronic plants and other new factories and for the new roles they will assume in the revamped estates. In the Borders, 14 per cent of the total education budget should be devoted to this important programme, with half going to the up-grading of skills necessary to the safeguarding of external markets and half to retraining of workers facing redundancy.

To community education Jensen allocated 2 per cent of all funds available to education at Level III and 5 per cent at Level IV to prepare the population to handle effectively the problems of population size, migrations, public health and community re-organization. With the exception of public health, these are serious problems in the Borders and if the difficulties of providing medical care for the elderly is focused upon in the public health sphere, all four problems may be recognized as crucial concerns in the region. If the new direction outlined at the outset of this chapter is accepted for the Borders, community education must play a substantive role in the persuasion of people to redefine their vocational and social goals and to prepare for a life based on a "landed" form of development rather than the urban, industrial life style they have been accustomed to expect. To accomplish the re-education necessary to the first stage of the new economy and to initiate a reversal of the flow of migrants from the landward areas, 4 per cent of the total educational budget should be assigned to community education.

Jensen allocates 55 per cent of educational resources at Level III and 40 per cent at Level IV to formal education. At Level III he prescribes a third of this allocation to elementary education, a third to secondary and a third to tertiary level education. But since the financing of universities in Scotland does not come from the rates and does not figure directly in regional budgeting, the portion of educational resources devoted to these institutions need not be deducted from this allocation.

The elementary and secondary system in the Borders has always provided a creditable programme. All four counties established curricula in keeping with Scottish educational traditions and staffed their schools with competent teachers. The regional board will want to improve some of the accommodations and will face the dilemma of whether to close small rural schools and bus pupils still farther at younger ages or keep the schools open with much reduced enrolments, but there is no doubt that the programmes offered will be of good standard whatever the decisions on these matters.

To move the region in the direction of the new economy a greater emphasis will be required on agricultural sciences and on technical skills associated with agriculture, farming machinery, forestry and game management. An expansion of further education for full time classes, day and block release and evening classes will be necessary. An agricultural college with small campuses located in an upland area, in the central corridor and in the Merse should be established, with a broad curriculum purview that includes the full scope of estate development suggested earlier. A branch campus of the University of Edinburgh should be situated

in the central corridor to enable the young men and women of the Borders to attend university in their home area and to permit adults in the region to attend on a part time basis. To accomplish these objectives 51 per cent of all resources designated for educational purposes should be devoted to formal education. Fifty per cent of this allotment should be spent on the elementary programme in which the emphasis should be on mathematics, science, agricultural and nature studies and on industrial arts appropriate for elementary age children, in the final two grades. Forty per cent should be directed to the secondary programme where encouragement should be given to all children to stay to complete a general or a vocational course. The objective should be to have 70 per cent of all children complete a general course to "O" level or a vocational training course of three or four years. (Vocational courses will vary in length according to the nature of the content and the level of competence they are designed to achieve.)

Nine and a half per cent of the formal education allocation should be devoted to pre-school nursery, play group and mother and toddlers' programmes and for creches for working mothers. At first it may be necessary to provide mobile classrooms to accommodate children and mothers in some of the landward areas, but gradually facilities should be found to accommodate all three and four year olds in elementary schools which have been closed, in church and community halls or in private homes. The education authority allocation should be used to pay the full cost of the programme for three and four year olds. Mothers and toddlers' groups, nurseries and creches for younger children should be sponsored in terms of facilities, where possible, but operation of the programme should be left to volunteer and self-help groups.

One half of one per cent of the formal education budget should be allotted to the creation of "initiatives" designed to establish a base for a branch campus of a university in the Borders. Extension courses of Heriot-Watt, Edinburgh or any other interested university, or Open University classes, could be held at one of the schools in the central corridor. Visiting lecturers could be invited to address co-operative groups of adult education classes, W.E.A., Women's Rural Institutes and like groups. A committee representative of a wide spectrum of Borders' life might be appointed and funded to try to win the co-operation of the necessary authorities to get a branch campus established there.

One per cent of all the resources available to education should be designated to the establishment of a liaison between the formal educational programme and the many voluntary agencies active in the educational field. A great deal of useful educational work is accomplished by societies and clubs. It would be difficult, to list all the organizations which play a part in the cultural, vocational, avocational and intellectual enrichment of residents in the Borders, but it is certain the list would be a long one. Among the kinds of associations that would be included would be historical and scientific societies, professional associations, debating and music societies, community associations, parent-teacher associations, trade unions, hobby clubs, veterans associations, women's institutes, hospital auxiliaries, St. John Ambulance Brigades, cancer societies and many, many more. As government provision of courses has grown the work of these agencies has diminished and the diversity of available cultural and learning situations has narrowed. Consequently, an effective and economical means of

sharing knowledge is being lost. By investing one per cent of the educational budget a bureau could be provided as a meeting ground for all such organizations through which information could be exchanged, where a comprehensive agenda of all courses, debates, lectures, training programmes and events in the region could be kept, where lists of resource personnel could be available, where the names, addresses and 'phone numbers of the heads of all organizations in the region could be kept in an up-to-date file, where all information deemed helpful by member agencies could be made available to encourage the continuance and spread of this least costly of all educational forms.

Applications - The Proposed Allocations and Existing Plans

In this section the set of educational allocations derived from the Jensen framework will be applied to the plans outlined in Chapter VII to test their appropriateness to the objectives of the plans and/or to estimate their effectiveness in promoting the new economy proposed in this paper. For convenience the plans will be considered in the chronological order in which they appear in Chapter VII.

The Royal Burgh on the Jed

In the two decades prior to their study, the Technical Working Party that prepared this report saw three mills close in Jedburgh and saw the dislocation to individuals, families and the entire community that these closings brought about. The emigration of some, the changed life styles of others, the necessity to commute to jobs outside the burgh, all the effects of a changed job market were seen as eventualities that need not have occurred and might

be avoided in the future. The Working Party set out to prescribe the medicine Jedburgh must take to remedy the weaknesses that made the burgh vulnerable to this malaise.

How might the proposed educational allocations have prevented the closing of the Jedburgh mills?

The three mills that closed failed because they were no longer competitive in the tough world-wide marketplace of the textile industry. Their failure was brought about neither by unrealistic wage demands by Jedburgh workers, nor by an inability of the mill workers to produce a quality product. Rather, mills in other parts of the world, notably in Italy and Japan, were able, at that point in time and that stage of technology, to manufacture similar goods for less because their costs were less.

Costs of production are complicated by many factors beyond the scope of this study, but the underlying reality is that the Jedburgh mills lost the competitive position they had enjoyed and were unable to survive. Other mills in the Borders and in Britain did survive. Among the reasons for survival were successful adaptations to new technologies and to new market conditions as they arose or as they were anticipated in advance of their occurrence. The considerable investment allocated in this paper to outreach, nonformal education, particularly as it applies to the continuing education of engineers and administrative staff and the heavy investment proposed for on-the-job, in-service training, might have enabled the management of the mills to foresee the difficulties they faced, to become familiar with alternative

procedures successful elsewhere and to initiate in-service programmes for mill employees to maintain their competitive edge.

Once the mills were closed, what would the educational prescriptions in this study have contributed toward the realization of the objectives of the Working Party?

The report, "The Royal Burgh on the Jed", outlined a strategy which the Working Party hoped would attract new industry to Jedburgh. It recommended a comprehensive new zoning plan, a revised road system, a separation of vehicles and pedestrians, redevelopment of the central area, a traffic free shopping area, additional housing to accommodate an expected increase in population, the attraction of new industries via the designation and servicing of industrial sites, and the establishment of an educational precinct to provide a campus in the central area for two of the burgh schools and to link educational and recreational land for public use. Two themes may be extrapolated from the recommendations, the preservation and enhancement of environmental features having amenity value and the establishment of conditions conducive to the attraction of industry.

The first theme requires that the people of Jedburgh see sufficient merit in the remodelled environment to accept the dislocation to their lives and neighbourhoods and to accept the costs involved in the redevelopment proposals. This is clearly a matter of community education. The allocation for community education would have enabled the authorities to inform all those involved of the aims, the problems, the costs and the advantages of the renewal programme so that they might make their decisions to support or

oppose the plan on a knowledgeable basis. This is not to say that the decision would necessarily be in favour of the plan. It would be only if the case for the plan was substantially a good one, the facts were adequately put forward and the decisions were made on intelligent consideration of the presentation. But, in any event, the decision would have been arrived at democratically.

The second theme, the attraction of industry, is the *raison d'être* of the report, and the method chosen was to make Jedburgh as attractive as possible to companies looking for new locations for their plants. The Working Party planned to do this by the provision of serviced sites, housing, and a pleasant place to live. They neglected the need to prepare a workforce for the prospective employer. The proposed educational allocations would have added this important ingredient to the incentives of the burgh.

Outreach, nonformal educational programmes would have retrained those employees whose jobs had become redundant, would have added to the vocational skills of the unemployed and would have up-graded the training of those whose jobs were in jeopardy. The formal educational system would have turned out young people with trades and vocational skills adaptable to a wide range of industrial enterprises. The prospective employer would have seen a workforce capable of ready adaptation to the tasks of his business.

"The Royal Burgh on the Jed" accepted the decline in the landward areas as inevitable and made no suggestions for the revitalization of the rural catchment area surrounding Jedburgh other than as a home base for commuters working in the burgh. They

thus ignored an excellent avenue toward the restoration of the burghal economy.

If one-third of the assistance given for the housing and re-development of the town had been directed to the renovation and enlargement of housing stock on the estates and farms in Jedburgh's rural hinterland, and if regional incentive payments had been made available to estate owners and farmers for the expansion of their operations on labour-intensive principles, and as subsidies on their crops to guarantee a reasonable profit for their labours²⁶ Jedburgh's role as a market town might have been largely restored, employment might have been stimulated to a greater extent than occurred and a foothold for a return to an economy based on a simple agrarian life style might have been established.

Kelso - Report of the Technical Working Party, 1965¹³

The erosion of Jedburgh's employment base by the closing of three factories was made worse by the loss of population from the surrounding farms and the loss of business in the burgh that resulted from this decline. Kelso had no industrial base to start with. It was a market town and service centre for the agricultural community. When the number of people working on farms and farm service work reduced markedly, so did the economic base of Kelso. The Technical Working Party analysed the problem and looked for a solution.

¹³ Kelso: Report of the Technical Working Party. Roxburgh County Offices, Newtown St. Boswells, February, 1968.

²⁶ A "reasonable profit" need not be guaranteed by subsidies. A crop insurance programme designed to pay a minimum return above costs could achieve the same results at less cost to the economy.

Much in the report and the solution suggested was predictable, but the report is remarkable in the compromises proposed between the contradictory demands for preservation and renewal of the burgh centre. The recommendations for increased population and the attraction of industry, for housing and industrial sites, for re-development, preservation of buildings and for walkways and recreational areas echo the proposals for Jedburgh, in purpose if not in detail. The one major distinction is that the Kelso plan considers the rural hinterland as well as the town.

The traditional economic relationship between Kelso and its catchment area is one which the Working Party wanted to maintain, but faced with what they saw as an inevitable continuation, if not acceleration, of the population decline in the rural areas,¹⁴ they accepted the loss of most of the service functions while arguing that the town's role as a regional centre would expand. The latter role implies a higher proportion of government, professional and like services than the former, otherwise the distinction is largely one of semantics. The recommendations of the Working Party assume a regional role for Kelso.

This role is reflected in the proposals for education. The Working Party saw Kelso as a mini-centre for education and recreation for the burgh and surrounding communities. Their projections included anticipated growth in the catchment area.

Proposals for road improvements within the town took into consideration the results of a study by the planning consultants

¹⁴Ibid. para. 3.

that showed that 20 per cent of traffic in Kelso was generated in the rural hinterland.¹⁵

Despite the regional bias of the Kelso recommendations and the historical symbiotic relationship between town and farm, no proposals are put forward dealing specifically with this function.

Kelso Recommendations and the Educational Allocations

The proposal to double the population of Kelso over a twenty year period would clearly impose a great many stresses on the residents of the burgh. To cope with this a greater investment in community education would be required than is provided in the allocations outlined for the Borders generally. For Kelso and its catchment area the proportion of educational resources directed to community education should be increased to 5 per cent during the growth period. This kind of adjustment could be made by the Borders Regional Education Authority from its global budget according to priorities in individual burghs or sub-regions.

The high proportion of tertiary sector jobs in Kelso (65% of all employment in 1968),¹⁶ combined with a dependence on a declining farm service market indicates a substantial clientele for retraining. Thus the allocation for outreach, nonformal education would be inadequate also. The Borders' allocation of 30 per cent should be raised to 33 per cent to allow for the unique situation in this burgh. By contrast, the number of workers in secondary industry

¹⁵Ibid. para. 22.

¹⁶Ibid. para. 49.

being unusually low, (30%),¹⁷ fewer places would be required in on-the-job, in-service programmes and the additional funding needed for community and continuing education could be drawn from this allocation.

Since the Working Party recommended the enticement of industry to Kelso, the formal education programme should stress trades and industrial skills to a greater degree than in some other parts of the region. As this is a more expensive programme than the general academic one a further adjustment in the allocations would be required, again drawing from the reduced need for on-the-job education.

Although the educational requirements of Jedburgh and Kelso are similar, the differences in detail serve to illustrate the need to tailor educational investments to the specific needs of the community. Where the programme is part of nonformal education, in-service training or community education, this is a simple matter of reapportioning allocations. Where the programme is part of the formal education system the alteration is difficult and slow to achieve.

The Kelso agricultural hinterland with its numerous small communities looking to the burgh for almost all services is an almost ideal area in which to experiment with the "landed" development strategy. It is appropriate, however, to consider this in the context of the Roxburgh Landward Community Development Strategy which is discussed later in this section.

¹⁷Ibid.

Earlston: Population and Employment¹⁸

The Earlston situation is unique. The study reveals a fully employed workforce that is nonetheless unstable because over half of the workers commute to jobs elsewhere in the region. The economic base is small, but there is little slack capacity in the village infrastructure to accommodate any major new development. Earlston is dependent on the prosperity of the sub-region which surrounds it, including the burghs of the central corridor. The Planning and Development Committee concluded that only marginal development was possible in Earlston.

Earlston and the Educational Allocations

The high proportion of retired persons in Earlston, (about one fifth of the population),¹⁹ presents a potential social problem. An over 65 population is necessarily more dependent on the social services and on the voluntary organisations and such a high proportion of the elderly suggests an unusual burden on the rest of the community. A 25 per cent increase in the allocation for community education is warranted to help the people of Earlston to adjust their social environment to compensate for the skewed age structure and to teach the elderly to help themselves and to get the most from their retirement. This increase could be taken from the allocation for in-service training which may be significantly reduced because half of the population works outside the burgh. The allocation for formal education too, may be reduced because of the high incidence

¹⁸ Berwick County Council, Planning and Development Committee, Earlston: Population and Employment. Report of the Planning and Development Officer, Duns, July, 1971.

¹⁹ Chapter VII, p. 277.

of the elderly although the higher than average proportion of under 15's in the population largely offsets this saving.

The advantages to Earlston planners in the implementation of the proposed allocations are not large because the study committee recommended that little be attempted. There are potential benefits nonetheless, in assistance to the villagers with respect to the care and understanding of their elderly family members and neighbours and in the education of the elderly themselves to be as independent as they are capable of being and care to be, and to enjoy the last part of their lives to the utmost.

There is a second potential benefit. Many among the commuting workers might prefer employment in Earlston. Retraining could provide them with the skills necessary to find work or to establish a business in the village.

Hawick: A Plan for Development²⁰

Development proposals for Hawick differ from those of the smaller burghs in three ways, in scale, in the amount of renewal required within the burgh and in the nature of its existing economic base. An initial target of 4,900 additional population was set by the Working Party in their Interim Report²¹ and the Central Borders

²⁰The Hawick Working Party, Hawick: A Plan for Development. Roxburgh County Council and Hawick Town Council, Tweeddale Press, Hawick, 1973.

²¹The Hawick Working Party, Interim Report: Hawick into the Seventies. Roxburgh County Council and Hawick Town Council, Tweeddale Press, Hawick, 1970.

Plan had suggested a total of 8,700 new residents could be accommodated in the burgh.²² The rapid growth of Hawick during the second half of the 19th century left a legacy of bad land use, bad buildings and congestion that presented major obstacles to re-development. Manufacturing in Hawick in 1971 employed over 50 per cent of the workforce, but over 90 per cent of these employees worked in textile manufacturing, almost all in hosiery mills.²³ The disruption to burgh life by the rapid addition of so many new residents, by the destruction of large parts of the central core, and by attempts to transform the narrow economic base creates tensions within the community that must be relieved if major social problems are to be averted. This is the kind of problem which community education can help solve. Once again an increase in the allocation beyond that proposed for the Borders Region is called for, but because the disruptions will affect only a fraction of the population at any time, a twenty-five per cent increase in the community education allocation should be sufficient.

Concentration of the workforce in a single branch of manufacturing is perhaps the most serious handicap to the establishment of stability in the economy of Hawick. A large influx of new industry is needed to diversify the employment base. To attract manufacturers it is important to have a pool of skilled and semi-skilled labour available to prospective companies. The building up of such a reserve can best be done through retraining in outreach, nonformal programmes and up-grading skills through on-the-job, in-

²²Chapter VII, p. 287.

²³Ibid. p. 283.

service training. Provision for these programmes in the proposed educational allocations assures that the necessary funding is available.

Changes in the population base and in the employment structure of Hawick are long term projects which will continue through the entire formal school period of at least one graduating class of students. The stressing of vocational and industrial arts skills in the formal education programme will therefore help provide the volume of trained workmen the burgh will require by the later stages of the development plan.

As the Hawick plan for development attains its goals the nature of the burgh and its economy will be changed radically. The educational allocations proposed in this study provide the flexibility and range of programmes to adapt to any new need that may arise. Systems based predominantly in formal educational provision have neither the flexibility nor the alternative forms to permit quick and easy adjustment.

Rural Studies

County of Roxburgh, Landward Community Development Strategy²⁴

One of the surprising revelations of the Roxburgh landward study was that contrary to appearances the larger villages (over 50 population) had been growing during the 1960's. They had larger populations and more houses were occupied. The decline was confined to the smaller villages and the countryside where the drop in population was marked and was continuing.

²⁴Constable, F. S. County Planning Officer, County of Roxburgh: Landward Community Development Strategy. Council Offices, Newtown St. Boswells.

A second factor revealed was the inconsistency of the depopulation across the region. Over the past one hundred years losses have been greatest in the upland parishes and in the south and east, whereas recent losses have been greatest in the arable lowland parishes. In the last group the average age is much higher so that, as farmers there retire, population losses could increase sharply.

Kelso District

As suggested earlier, Kelso town and district provide an excellent setting for an experiment in "landed" development as outlined in this study. The town has a long tradition as a service centre and marketplace for the farmers of a well-defined and substantial hinterland. It has lost much of its trade as the agricultural community declined and as modern transport made possible the marketing of local produce in distant centres and as increased ownership of automobiles permitted residents throughout the catchment area to shop further afield. Despite this, it remains the focus of a sub-region extending six to eight miles on all sides.

Attempts by Kelso Council to attract new residents and to expand the economic base during the 1960's were remarkably successful. The growth of the town during this decade exceeded the loss of population from the district. The exchange of population and the attraction of industry together changed the economic structure of the district.

Within Kelso's catchment area are two rings of villages.²⁵ The inner ring, two to five miles from Kelso is made up of dependent communities, too small to provide a wide range of facilities, looking to Kelso for most services. The outer ring, six to eight miles away, is composed largely, of independent communities, having facilities of almost the same order as Kelso. The outer communities are at the fringe of Kelso's sphere of influence. They look to the larger burgh for a few services, but compete with it for the custom of the rural population living between them and Kelso.

Six of the outer communities are in Berwickshire. They have a combined population of 3,830²⁶ to which should be added a small landward population. St. Boswell's, in the outer ring and Roxburgh, in the inner one, are in Melrose District. Together, their population is 1,110.²⁷ Jedburgh, in the outer ring, has a population of 3,874.²⁷ Kelso has a population of 4,852²⁷ and Kelso District has a population of 3,436.²⁷ The total population of the Kelso catchment area, ignoring those within its sphere in Northumberland and a few people in the countryside of Melrose and Jedburgh Districts and in south-west Berwickshire, is 17,102. This is a sufficient population to warrant a centre offering a wide range of facilities and services, but Kelso has to compete with Hawick, Galashiels and Berwick-on-Tweed for many of the customers in the outer ring. To justify the provision of a range of services sufficient to draw a

²⁵Chapter VII, p. 301.

²⁶Knowles, Basil, County Planning and Development Officer, A Rural Policy for Berwickshire. County Offices, Southfield Lodge, Duns, pp. 100, 102.

²⁷Chapter VII, p. 300.

majority of the outer ring customers to Kelso, the burgh must first establish a secure market in the town and its immediate environs in the order of ten thousand population. This might be accomplished by a combination of landed and burghal development.

If only the inner ring and Kelso District are considered, the hinterland population is 3,646 compared to the burghal population of 4,852, a ratio of approximately 3 to 4, an unusually high rural to urban ratio for the 1970's and one which makes this area a particularly good one for a landed development experiment.

If government funding available to local authorities to assist in the provision of housing and as incentives to the establishment of new industry, were provided in like manner to estate owners, farmers and other entrepreneurs for the development of corporate farming operations, the landward economy could be advanced in step with burghal advances. As the countryside prospered and increased in population it would add its purchasing power to the growth of the town.

Urban dwellers will not opt to return to a farm life with its long hours, hard physical work and low pay unless the advantages of satisfaction, a healthy environment, security, and a quieter, peaceful life style are adequately sold to them. This could be done through a community education programme. Where a commitment is made to try for a landed form of development a substantial investment would be required in community education.

Kelso District is one of the lowland areas in which the population is ageing rapidly. If some form of landed development is not begun there will be few workers left to man the farms when the present generation of farmers retires. Not only will this result in a sharp drop in food production in the Borders, but it will reduce the market for town services and goods and thus interfere with burghal development.

Jedburgh District

For the people of Jedburgh District the Roxburgh study paints a dismal picture of their future prospects. During the 1960's many residents appear to have come to a similar conclusion about the area's future, for 22 per cent of the population left the district during the decade. The district is handicapped by communication difficulties and by a landscape inhospitable to industrial development. Its one enterprise has been agriculture, but it has never developed agricultural service centres of any consequence outside of Jedburgh. The Roxburgh study rests future prospects on regional development, mainly on the possibility of industrial expansion in Jedburgh. Nearby communities are expected to gain some commuter residents from this development but obviously remote parts of the district stand to gain little.

Despite recent emigration, 76 per cent of all employed males in the Jedburgh District in 1966 earned their livelihood in agriculture.²⁸ Others were employed in service industries directly and indirectly dependent on farming. Clearly, for the greater

²⁸Chapter VII, p. 302.

part of the district land based enterprises offer the only hope for employment for the majority of residents, both now and for the foreseeable future.

Educational Allocations and the Roxburgh Study Recommendations

The only proposal for Jedburgh District in the Roxburgh strategy was for the further encouragement of industry to locate in the burgh. The allocation for outreach, nonformal education would help prepare workers for this expansion by providing vocational training to the unemployed and by training technicians and sub-professional personnel that will be required in the new factories.

On-the-job, in-service training would play an important role in preparing the present industrial workforce for the industrial expansion planned, while improving the quality of their workmanship so that they might maintain the competitive position of businesses already there.

Community education would prepare the population for the changes in the burgh and district that would accompany the new industry.

Educational Allocations and a Landed Development

Acceptance of the limited recommendations of the study committee for Jedburgh District is tantamount to accepting the gradual disintegration of what is left of the district's economic and social fabric. A better proposal is to spur landed development in the district.

Government assistance, as outlined for the Kelso District would be necessary to fund the operational and management changes that would be required at the outset, but a major educational effort would be the most important input. A powerful community education programme would first be needed to win converts to the new life style which must be accepted. It would also be part of the community education commission to teach the new attitudes and expectations so at variance with those conditioned by the consumer society.

Outreach, nonformal education is the best vehicle for imparting the knowledge and training required in the jobs created by this new initiative. This proposal does not fall far short of the readjustment of the society of an area, and as such seems a project of daunting complexity, but in fact the preparation of the workforce should be relatively simple to implement in Jedburgh District. With such a large proportion of the population already involved in the kinds of jobs that will be needed, arable farming, cattle and sheep farming, forestry, farm equipment operation and repair, tourism, and so on, the task of preparing the workforce is largely completed already. The more difficult task will be the engendering of the new attitudes and expectations.

Since the majority of the jobs required for landed development already exist, on-the-job, in-service training will play a part in raising the level of skills to enable Jedburgh District to compete successfully, at a labour-intensive level, with outside goods and services provided by machine-intensive rivals. Initially, subsidies might be required to assure local purchasing preference, but the effect of the in-service training should be such that the

necessity for assistance would decrease as local businesses adapt to the unique conditions of the new economy.

Jedburgh District exemplifies the 'back-water' aspects of much of the Borders' countryside. Its lack of development, so long considered a kind of economic retardation, a failure to keep up with the modern world, today takes on aspects of a fortunate, Fabianist strategy which has preserved its social and physical environment for the next stage of societal development.

Hawick District

Hawick District should be considered in two parts, the northern part focusing on Hawick and the southern part focusing on Newcastleton. The northern section should look to the industrial expansion of Hawick in the short term with limited development at Denholm, the smaller satellite communities providing commuter homes for workers in the towns. In the long term the northern portion of the district should aim to provide a market garden service to the towns as the major economic enterprise with recreational provision and forestry as supplementary businesses. The southern portion, like Jedburgh District, should look to landed development, with forestry and tourism as the principal industrial ventures.

The first objective of a development strategy for Hawick District must be to prevent any further loss of population. It is difficult to see how else this can be achieved except via a community education programme. All those living in the district must be convinced that there is a reasonable future for them in a farming community and they must be informed as to the life style they

may expect if they choose to stay. For many in the northern section this will mean daily commuting to Hawick until the energy crisis ends this wasteful practice. Then they will have to choose either to live in the burgh or to change their occupations to remain in the district. Again, community education could prepare them for the change.

In the southern section community education should play the same role as in Jedburgh District. The problems are much the same, but complicated by even greater remoteness. The role of community education is vital to the retention of the population base. The development of Newcastleton as a sub-regional centre to provide a focus for the social and cultural life of the upland area is also of major importance.

Outreach, nonformal education should provide the major educational thrust for the retraining programmes necessary in Hawick District. The data in Chapters IV and VI point out that adults in remote areas of the Borders take part in few educational programmes and then almost exclusively those that are available to them in their immediate neighbourhood. The educational system must go to these people. They are not going to come to it.

The same is true of on-the-job programmes. To reach the people and to win their interest and co-operation the educational programme should be introduced through the organizations and clubs to which they already belong, young farmers' clubs, farmers' unions, country-women's organizations and the like. Wherever possible programmes designed by their trade associations, etc. should be used as or incorporated into the provision.

Formal education in Hawick District should show a bias toward natural science, agriculture and forestry. Vocational subjects should be stressed and there should be opportunity for exit and re-entry into the system particularly for students in the fourteen to twenty age range. The statistics of Chapter V show a sudden departure from formal schooling of large numbers of students, especially of boys at or around the school leaving age. Many of these students undoubtedly had mentally dropped out two years or more before they could physically do so, but long before they had reached their academic limits. If these students were permitted to leave when they no longer considered they were benefitting from the schooling, but encouraged to return without penalties or recriminations when they recognized the benefits, there would be advantages for them and for the system as well. If vocational programmes in the formal system were integrated with nonformal and in-service programmes, the school leaver could move from one to the other or back with a minimum of loss to him and with major benefits for the economy.

Melrose District

Melrose District may be described as a residential district to a greater extent than any other in the Borders. It is unlike the three districts above in a number of ways and educational priorities should reflect the differences. The prospects for major developments in housing, industry and service occupations are so much greater for Melrose District that these too must be reflected in a different educational format.

Industrial development at Tweedbank could precipitate such a sudden increase in industrial activity that the workforce might be enlarged by substantial increments at short notice. The formal system could not cope with the need for trained personnel at such a rapid rate. Nonformal education would be required to do the job. It is the system which can produce a new workforce quickly. It would also be the system to call upon to produce trained personnel for business and service occupations that may also expand rapidly in the central corridor.

On-the-job, in-service education should also be given a significant role in the development of the new workforce, but this system should be relied upon to up-grade the qualifications of those who will have to assume supervisory and managerial positions as the workforce expands.

The sudden growth expected in the Melrose District and the changes in the social milieu that are certain to accompany the growth, indicate a need to prepare the community for the trauma. Community education should be relied upon for this purpose.

The diversified nature of development expected in Melrose District and near it, calls for a formal education system with a number of options. Students at the secondary level should be able to choose between courses leading to trades, business or academic pursuits. As much of the direction of the Borders Region is likely to come from the central corridor, Melrose District schools may be expected to have a higher than average number of students opting for professional courses and this should be encouraged to guarantee

the high level manpower needed to obtain and maintain a competitive position in external markets.

The educational allocations laid down for the Borders Region at the beginning of this chapter are appropriate for Melrose District, but it may be necessary to supplement these allocations during periods of unusual growth in the central corridor.

The Changing Role of the Village

Approximately 7,000 people live in villages of 50 or more people in Roxburghshire, according to the 1971 census.²⁹ This population is increasing. The increase, however, is not creating a resurgence of village economies. Many of the new residents are retired. Others are commuters or part-time residents who have bought a house as a retirement home or as a cottage. Industries have not located in the villages. The role of the village has changed from agricultural service centre to a collection of residences with little economic life.

Villages near larger centres may be able to survive in the present role provided the neighbouring burgh or the region as a whole generates a significant volume of business. Those in remote areas are not likely to survive much longer unless a new role is developed to justify their economic existence.

The Roxburgh Landward Community Development Strategy did not make specific proposals for the development of villages. It simply

²⁹Constable, op. cit., p. 3.

classified them according to their potential for development. In all cases the development considered was industrial development or housing. A land based form of development was not considered. The planners fell again into the trap of traditional economic theory that is predicated on a continued flow of people from the farms to the city, on development based on mechanisation and bigness. Yet, the best hope for rural areas may lie in the opposite direction. As Roszak says,

-- small is free, efficient, creative, enjoyable, enduring. Reaching backward, this tradition embraces communal, handicraft, tribal, guild and village life-styles as old as the neolithic cultures.

-- In our own time it has reemerged spontaneously in the communitarian experiments and honest craftsmanship of the counterculture, where we find so many desperate and often resourceful efforts among young dropouts to make do in simple, free, and self-respecting ways amid the criminal waste and managerial congestion. How strange that this renewed interest in ancient ways of livelihood and community should reappear even as our operations researchers begin to conceive their most ambitious dreams of cybernated glory. And yet how appropriate. For if there is to be a humanly tolerable world on this dark side of the emergent technocratic world-system it will surely have to flower from this still fragile renaissance of organic husbandry, communal households, and do-it-yourself technics ----³⁰

It is not necessary to accept the full range of behaviour expressed in the counterculture of the 1960's, to accept the underlying thesis. There must be a turning back from the brink of environmental destruction to a simpler, freer life-style that preserves our natural resources and encourages individual enterprise. Landed development must be encouraged that is based on labour intensive methods. In such a realignment the villages would once again become the focus of sub-district organization.

³⁰ Roszak, Theodore, in the Introduction to Schumacher, op. cit., p. 4.

Educational allocations in the villages necessary to encourage land based development need not differ from those which would facilitate the range of development considered desirable in the Roxburgh study. Community education would be necessary to prepare the villagers for change, whether it was for industrial or landed development. The 4 per cent allocated for the Borders Region would be an appropriate amount. Outreach, nonformal education would be necessary to build up the workforce of the village as an agricultural service centre, as a social focus and as the tourist base for its hinterland, and the Borders Region appropriation of 30 per cent of educational investment would be suitable. For those already employed in activities consistent with the new village role, on-the-job, in-service training would be useful to sharpen their skills to improve their competitive position. Formal education, would stress natural sciences, vocational and agricultural skills. It should be allocated 51 per cent of the resources available for education. One per cent should be allotted to establish a bureau to co-ordinate and encourage all voluntary bodies active in the educational field. There appears to be no reason why the allocations for the Borders Region in general should not be applied to the villages in general, but the prescriptions would be subject to local adjustments where the particular conditions in a village required it.

A Rural Policy for Berwickshire³¹

Whatever the problems of the Borders counties, Berwickshire seems to suffer them more than the others. Depopulation has been greatest in Berwickshire. The population is the most unbalanced.

³¹ Knowles, Basil, County Planning and Development Officer, A Rural Policy for Berwickshire, County Offices, Southfield Lodge, Duns.

The loss of the young is most serious. The marriage-fertility rate is lowest. The birth rate is lowest. The concentration of employment is greatest. The burghs are the smallest. As a consequence a workable development strategy for Berwickshire has been more difficult to devise. "A Rural Policy for Berwickshire" is the more noteworthy in light of these handicaps. It is a practical plan tailored to the physical and social situation in the county.

The smallness of the industrial base in Berwickshire has restricted the county's ability to absorb workers from the farms and has restricted opportunities for expansion or diversification. The introduction of food processing, albeit on a small scale, was therefore a major new initiative, in that it represented a new industry, a new hope for the establishment of a secondary sector base in the county and a new direction for development. From the standpoint of this study it is significant in one more important way, it is a landed form of development, for it merely processes the products of agriculture. Thus it is a step in the direction recommended for development in this study. Its success is an encouraging evidence that development of this kind can work in the Borders Region.

Educational allocations in Berwickshire should be so planned that they contribute to a solution to the problem of depopulation in the county. As low morale is considered to be a contributing cause to the loss of population³² the allocations should be designed to foster positive attitudes concerning the future of the county. Because Berwick is a rural county, educational investments should stimulate

³²Ibid. p. 109.

interest in the careful exploitation of its land, soil and water resources. Here caution must be observed to prevent the development of one sector of the environment at the expense of another. In the words of the policy statement,

In a rural county such as Berwickshire it is essential to the understanding of the problem that recognition is given to the fact that all the activities carried on in the countryside form a part of an area system. These activities can support and serve each other, or can complement or conflict. However, the combined effect provides the environment within which people work and play. There is no doubt that the future development of these activities must be planned with integration in mind, so that they work together to provide as wide a range of opportunities and as good a standard of living as possible for the resident population.³³

Community education is the logical method to restore confidence in the county and is also the best vehicle for promoting the acceptance of an integrated approach to Berwickshire development. The two objectives are, of course, closely related so that accomplishment of either contributes to the accomplishment of the other.

(It will be seen that the quotation above comes very close to a description of landed development as advocated in this chapter. In fact, the sections on Land Utilisation, Multiple Use of Land Resources and Countryside, in the Berwickshire report,³⁴ set out a county-wide strategy for multiple land use which parallels the landed development suggestion in many respects.)

The Berwickshire report considered that the co-ordination of all agencies involved in planning or utilisation of the rural environment

³³Ibid. p. 83.

³⁴Ibid. pp. 83 to 90.

was essential to the formulation and implementation of a credible rural strategy.³⁵ Part of the one per cent of educational resources allotted for the establishment of a bureau as a liaison among all voluntary agencies involved in education could be used to establish this co-ordination. Among the organisations that would be invited to take part would be the Countryside Commission, the Scottish Landowners Federation, the Border Agricultural Executive, the National Farmers Union and the Scottish Woodland Owners Association. The plans put forward by these groups in the past have been insular, in that they have been prepared in isolation, concerned only with the best interests of their own group. Through the bureau they may be drawn into consultation and shown that through a wider based investigation of resources and study of related possibilities of action, programmes of work may be devised that are mutually advantageous and that avoid duplication and cross purposes. At the same time members of the various groups may learn how the encouragement of an alternative development can help with the development of their own area of interest rather than conflict with it, as in the case of strip planting of trees and increases in the number of grouse.³⁶ In this way the bureau might serve a vital educational purpose difficult to achieve in any other way.

The report strategy proposes that development should be pursued in sub-county settlement groups rather than on a village basis. The settlement groups are illustrated in Figure P-1. Successful implementation of this strategy requires that the population within

³⁵Ibid. p. 93.

³⁶Ibid. p. 85.

each settlement group accept the design rationale, the role determined for their village or landward area, the focus of their settlement development and the limitations on growth assigned. The winning of this acceptance is again a function of community education.

The attraction of industry was considered essential to the future economic viability of Berwickshire. To attract industry a pool of skilled and semi-skilled labour is needed. Outreach, non-formal education should be used to prepare this workforce quickly and economically. On-the-job, in-service training should be used to improve the skills and versatility of those already employed in jobs providing goods and services for external markets, or those employed in jobs that are in danger of becoming redundant, or to retrain those already declared redundant.

The formal education programme should reflect the educational requirements of the Borders Region as a whole, of Berwickshire as a sub-region and of the individual settlement group. Within the settlement group formal education should be structured to help solve social concerns of the group such as a high percentage of elderly people and to prepare the long term workforce envisaged for the development planned for that settlement area.

The framework presented for the Borders Region, 30 per cent of educational resources for outreach, nonformal education, 14 per cent for on-the-job, in-service education, 4 per cent for community education, 51 per cent for formal education and 1 per cent for the establishment of the bureau as a liaison for voluntary agencies, is appropriate for Berwickshire and for the settlement groups in general.

Eyemouth Settlement Group

Eyemouth is the designated growth point in this group, so local authority and private housing for the area will be concentrated here. It has increased in population in recent years and is expected to grow by another 430 by 1981, to the target population of 3,000.³⁷ Plans call for the new population to find jobs eventually in new industry, increased tourism and a new cottage hospital. In the short term, employment will be provided in the construction of a new breakwater for an all-weather harbour, re-alignment of the Eyemouth-Ayton road, re-development of the harbour area, construction of a public park, development of tourism and recreational facilities and construction of the cottage hospital.

To help promote the development outlined in the report, educational allocations should feature nonformal education for the preparation of the workforce required for the initial construction period and for the industrial and tourism jobs to follow. They should also feature community education to prepare the population for the changes and to stop the outflow of school leavers, university trained and professionally qualified workers, and others displaced from jobs on farms, in construction and in manufacturing.

Between 1964 and 1970, 179 girls and 219 boys from the Eyemouth Employment Exchange area left school to take jobs outside Berwickshire.³⁸ This exchange area covered most of Berwickshire except for the Earlston area and may be taken as typical of the

³⁷Ibid. p. 95.

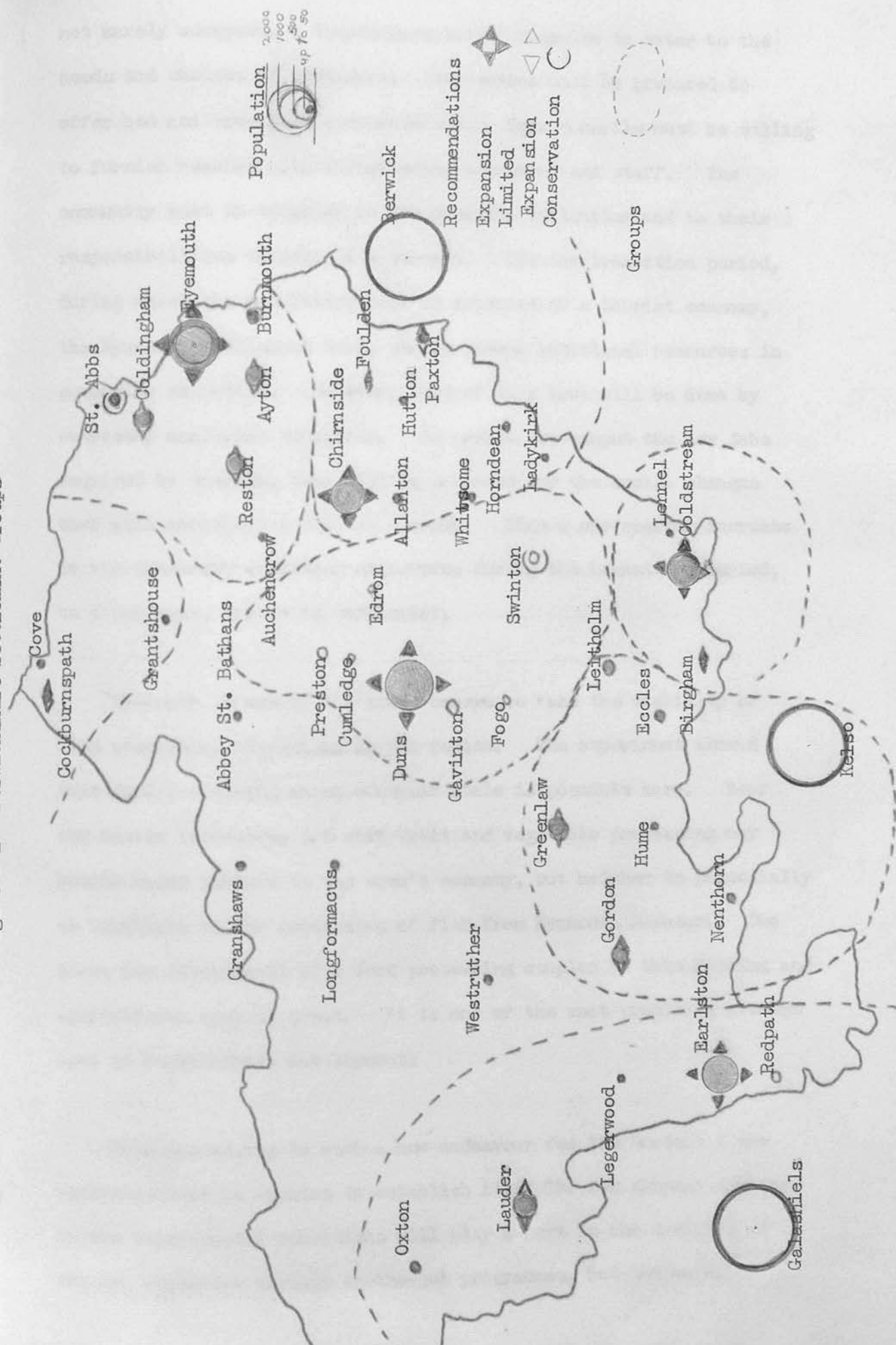
³⁸Ibid. p. 44.

Berwick employment pattern. For the years 1965 to 1970, 534 boys and 450 girls left school to take jobs within Berwickshire.³⁹ Thus, roughly 25 per cent of boy school leavers and 33 per cent of girl school leavers during this period, or approximately 29 per cent of all school leavers, took jobs outside the county. There are many reasons for the exodus of young people who leave the county for work, some of which have nothing to do with the availability of jobs at home, but figures as high as these indicate a serious depletion of the Berwickshire workforce. Community education could contribute significantly to the county's economic potential by reducing this outflow of energetic young workers.

Much of the decline in employment in Berwickshire during the 1960's may be attributed to the reduction in bus services, to a major shift in the world wide competition for textile markets, and other factors beyond the control of Borderers, but the fact remains that the jobs were lost because the businesses concerned were unable to continue operating at the same level of employment at a satisfactory profit. On-the-job, in-service training can help improve the high level executive expertise to foresee and avoid down turns in business and help improve the skills of the workers to enable them to do a better job at a lower price than their competitors. Many jobs can be saved by maintaining this competitive edge.

For the Eyemouth Settlement Group, because of its coastal situation, tourism offers the fastest and surest avenue to an improved economy. But this industry requires above all else a receptive resident population. The visitors must be made welcome,

³⁹Ibid. p. 46.



Source: Knowles, Basil. A Rural Policy for Berwickshire. County Planning and Development Office, Council Offices, Southfield Lodge, Duns, 1972, 19.1.

not merely accepted. Shopkeepers must reorganise to cater to the needs and choices of strangers. Housewives must be prepared to offer bed and breakfast accommodation. Town councils must be willing to furnish beaches with lifeguarding equipment and staff. The community must be educated to the benefits of tourism and to their responsibilities to make it a success. For the transition period, during which the population must be oriented to a tourist economy, the Eyemouth Settlement Group should invest additional resources in community education. However, part of this task will be done by outreach, nonformal education. As people are taught the new jobs required by tourism, they will be prepared for the social changes that will accompany a tourist economy. Thus a one-quarter increase in the community education allocation during the transition period, to 5 per cent, should be sufficient.

Eyemouth is one of the towns chosen to test the viability of food processing operations in the region. The experiment showed that food processing on an economic scale is possible here. Beef and mutton processing and soft fruit and vegetable processing may become major factors in the area's economy, but neither is potentially as important as the processing of fish from Eyemouth Harbour. The scope for development of a food processing complex in this fishing and agricultural area is great. It is one of the most promising avenues open to Berwickshire development.

Food processing is such a new endeavour for the Borders a new workforce must be created to establish it. The few already working in the experimental operations will play a part in the training of the new employees through on-the-job programmes, but outreach,

nonformal education will be required to supply the bulk of the new workers, particularly the high level workers. The latter may be recruited from among professionals and other highly educated people whose jobs have become redundant. The 30 per cent of educational resources allotted to outreach, nonformal education in the proposed Borders allocations should be an appropriate allocation for the Eyemouth Settlement Group.

The small size of the secondary sector base in the Eyemouth Settlement Group reduces the need for on-the-job, in-service training. The industry that does exist should be given every assistance to up-grade the skills of their employees to improve opportunities for export sales, but the numbers involved are so few that the allocation for this part of the educational budget should be reduced to 13 per cent.

For the town of Eyemouth and the villages of St. Abbs and Burnmouth, the proposals therefore are: 30 per cent of educational resources for outreach, nonformal education, emphasizing the preparation of a workforce for a food-processing industry and the related workforces required for the supply, sales and distribution of this industry; 13 per cent for on-the-job, in-service training to up-grade worker skills in existing industries to keep them competitive and to retrain redundant workers; 5 per cent for community education to prepare the population for social and economic changes, especially those involved in the change to an economy dependent on tourism; 51 per cent for formal education emphasizing vocational skills, agricultural and natural sciences and commercial subjects; 1 per cent for the establishment of a liaison between voluntary educational agencies.

For Auchencrow, Coldingham, Ayton, Reston and the landward areas of the Eyemouth Settlement Group, the recommended allocations are the same as for the Borders Region in general, 30 per cent for outreach, nonformal education, 14 per cent for on-the-job, in-service education, 4 per cent for community education, 51 per cent for formal education and 1 per cent for the establishment of a liaison between voluntary agencies. The difference in emphasis should be, as prescribed for the Borders Region as a whole, the preparation of a workforce and a social readiness for a landed form of development in the agricultural community.

The Duns Settlement Group

Duns, the county town of Berwickshire, is in a precarious situation as a town. It, and its settlement hinterland have lost population at an alarming rate in recent years, (7.8 per cent between 1961 and 1971)⁴⁰ and regional re-organisation threatens the additional loss of local authority staff. The study committee recommended therefore, that all new investments by the local authority, and as far as possible by private funding, be directed into Duns. Future housing developments, it was suggested, should take the form of re-development of decaying parts of the town centre.

Outside of Duns the study committee recommended that no new projects be encouraged, although re-development was favoured for derelict sites in Swinton and other villages.

The only proposal for development in this settlement group was for the attraction of new industry to locate in Duns. Were this

⁴⁰Ibid. p. 98.

to be successful it would be a positive step, but the amount of new employment provided and the spin-off benefits derived therefrom are not likely to be large in an area so remote and so poorly served by roads. It would appear to make better sense to anticipate the trend to landed development and to encourage investments in this direction. In the Introduction to the Berwick report the study committee noted,

The main reasons for this rural de-population have not changed during the last 100 years. The basic causes of de-population have been the declining employment opportunities offered by the countryside, resulting both from the mechanisation of agriculture and the steady movement of economic activities from the villages and rural communities into the towns and cities ... There is no doubt that the centralisation of economic life has resulted in the rural environment being steadily weakened. Other factors which have also played a part in the decline include low wages, poor housing and lack of amenities, all of which can be bettered by an industrialised society.

It is clear that the stimulation of the physical, social and economic life of the county depends on the creation of new economic activities in the countryside and also involves the probability of a new pattern of settlement within this rural area.⁴¹

The loss of economic activities that sustained the villages accompanied the loss of population as mechanisation continued. The energy shortage will force us soon, if it has not already, to look well at that mechanisation. It is time to reverse the trend. But there can be no sudden abandonment of mechanisation. At first labour should supplement the work of the machines and new programmes should be introduced as labour intensive activities. A concerted effort should be made to decentralise control of as many aspects of rural life as possible. Good housing and other amenities should be made available to rural dwellers to make their lives more attractive and community education should be employed to show that the high

⁴¹Ibid. Section 1, Introduction, para. 1.4, 1.5.

wages of an agricultural life are found in security and contentment.

By reversing the decline the villages can be restored to functioning service centres. By diversifying the activities on large land units the combined income of the activities can provide an economical operation. This form of development is recommended for the Duns Settlement Group.

The study committee recommends the attraction of industry to Duns. To facilitate this desirable objective, outreach, nonformal education should be employed to train the workers required. On-the-job, in-service training should be used to improve the skills of those already so employed to help assure that present industries remain competitive.

The major task of education should be the preparation of the population for landed development. Thus community education should be assigned the task of introducing the social and economic concepts upon which a landed development strategy must be based. Since this is recommended as the principal initiative for this sub-region, 5 per cent of all educational investment should be allocated to community education in the Duns Settlement Group.

On-the-job, in-service training should be used to retrain farm workers to the methods of labour intensive agriculture and to the new tasks added by diversification of the estate economy. Farm workers made redundant by mechanisation should be retrained to the new tasks as well. Still, owing to the smallness of the industrial

sector in Duns, a smaller amount is required for in-service training than in the Borders Region allocations. Thirteen per cent of educational investment is an appropriate proportion here.

Outreach, nonformal education should be used to provide basic, vocational and personal-family management education for those in the economy who are consistently in straitened circumstances and who experience difficulty holding a job. It should also be used to retrain redundant workers and to up-grade the skills of the under-educated unemployed. The 30 per cent allocation for the Borders Region for this educational input should also be prescribed for the Duns Group.

Formal education should stress vocational and agricultural courses, mathematics, science and business. It should be allocated 51 per cent of educational investments as in the Borders Region allocations.

As with the Borders Region allocations, one per cent of educational investment should be directed to the establishment of a bureau as a liaison between the voluntary organisations involved in education and the formal system. This should play an even greater part in a scattered rural area like the Duns Settlement Group than in more populated areas. It should be able to mobilize the volunteer agencies to maximize their educational roles in a complementary manner.

The Galashiels Settlement Group should be allocated an amount

Galashiels is the focus and growth point designated for this

area, but it lies outside Berwickshire, in Selkirkshire. As a consequence little industrial expansion is expected on the Berwickshire side of the county boundary. A limited amount of industry and some new housing is suggested for Earlston and some private housing is accepted for Lauder. Otherwise no development is proposed for the Galashiels Settlement Group.

This settlement group provides many commuter workers to the central corridor, and will undoubtedly provide more as the central corridor expands, but the Galashiels Group is not likely to expand its own industrial base significantly. Any large shift in its economy will most probably derive from its agricultural base. However, the presence of the central corridor markets and nearness of Edinburgh and the A68 will make it more difficult to return to a land based economy. This emphasis should therefore be softened in the community education programme. However, the bedroom community aspects of the population put unusual stresses on the community social structures as does the high population of the aged resident in this area. These factors suggest that a community education programme should have a high priority in this settlement group.

The community education programme should prepare the population for, and where possible prepare them to avoid, the domestic problems associated with a commuting life-style. It should teach the community how to adjust to a high proportion of elderly in the population and should teach the elderly how to get the most out of their circumstances and their capabilities. Five and a half per cent of educational investment should be allotted to community education to fulfil this role.

It is probable that many of the workers commuting to work elsewhere would prefer to work in their home area. Whether or not this is so, it is important to begin reducing the amount of unnecessary energy consuming travel as quickly as possible. Thus an opportunity should be given to commuting workers to retrain to employment available locally. Outreach, nonformal education is best able to do this job.

Outreach, nonformal education is also the best vehicle for the transmission of personal-family management training to complement the work done in community education with respect to commuting problems. Where community education would be concerned with the encouragement of a supportive, caring community, outreach, nonformal education would be concerned with the provision of education and training to help the individual or the family adjust to tensions created by the travel-to-work situation. Nonformal education should be used to retrain the vigorous retired and others whose skills are in over-supply, who want to work on the labour intensive agricultural estates. The need for outreach, nonformal education in the Galashiels Settlement Group appears larger than in the region generally. It should be allocated 32 per cent of all educational investment.

As in the Duns Settlement Group, the industrial workforce is smaller than the average for the Borders. In addition since many of those employed work in other counties, the investment in on-the-job, in-service training need not be as large. On the other hand it is especially important that the few enterprises in the Galashiels Settlement Group should survive, precisely because the economic base is small. Should it collapse, the present hold of the area on its

commuting workers would be fractured and a wholesale exodus could result. On-the-job, in-service training should be made available to local businesses so that the skills and knowledge of their workers may be improved to maintain their ability to compete with and in outside markets. Programmes should also be available for farm workers and those in ancillary trades to enable them to change over to labour intensive operations without suffering an abrupt drop in their standard of living. On balance, ten and a half per cent of educational funding would be an appropriate allocation for on-the-job, in-service training.

Formal education in the Galashiels Settlement Group should follow the prescription for the Borders Region.

The Coldstream Settlement Group

There are only three Berwickshire settlements in the Coldstream Settlement Group, Coldstream, Birgham and Lennel and no deliberate investments are recommended for the latter two. Thus Coldstream, to be increased to a population of 1,800 by the addition of 480 new residents, is the only development centre in the group. The growth in Coldstream is planned to accompany the success of its industrial estate, if that success occurs. If it does not, the growth is hoped for through the expansion of tourism and the addition of commuter residents employed in Kelso and Berwick.

The Berwick study proposes no major dislocations to life in the Coldstream Settlement Group, the projected growth in the burgh by 36 per cent in ten years being the most dramatic change. Consequently, community education would not have as high a priority here

as in some areas. The proposal to exploit the tourist potential of Coldstream does call for community education, however, and the one-third growth, plus the adjustments necessary to partial industrialisation and an expanded commuter population, warrant the full 4 per cent allocation common to the Borders Region.

Coldstream is on the fringe of the Kelso catchment area. Any major landed development in the Kelso hinterland will involve Coldstream and its rural area. The community education programme should take this into account and should encourage the change of attitudes and expectations required for a land-based economy.

The chances of attracting manufacturers to any town are improved if there is already a suitable workforce there. Nonformal education could quickly prepare the industrial workers Coldstream needs. Tourist operators, clerks, waitresses, the whole spectrum of workers needed to turn Coldstream into a holiday centre, could also be prepared through nonformal education. Agricultural workers, technicians, foresters, estate managers, could be taught both the skills to develop a land-based economy and the characteristics of the markets they would have to win to make the venture successful. In all these educational requirements Coldstream is typical of the Borders Region as a whole. Hence the educational allocations for the region are appropriate for this settlement group. For outreach, nonformal education that allotment is 30 per cent of all educational investment.

The Borders Region allocation for on-the-job, in-service training is 14 per cent of total educational investment. Coldstream too,

should be allotted this amount. It should be used to improve the skills and knowledge of those employed in existing businesses, whether in industry, service, tourism or agriculture, to ensure that the sub-region holds the markets it has and to help it expand.

The remainder of the educational budget, 51 per cent for formal education and 1 per cent for the establishment of liaison with voluntary agencies, should follow the allocations outlined for the region.

The Berwick Settlement Group

The major growth point for this settlement group is Berwick-upon-Tweed which is outside Berwickshire, in Northumberland, England. The Berwickshire strategy proposes that policy in the settlement group should be devised to support the planned expansion in Berwick-upon-Tweed rather than attempt to create indigenous development. Thus again, the strategy is one of reaction instead of initiation.

The only development the planning group recommended should be stimulated by local authority action was in Chirnside. This was to receive local authority housing in support of its existing industries, particularly C. H. Dexter Ltd. Otherwise no local authority intervention was envisaged, except encouragement of private housing development. Private housing is expected in Paxton and Foulden as a result of the plan to expand Berwick to 20,000. Once more, the growth anticipated is a passive reception of commuter residents as a consequence of initiative elsewhere. If this is accepted, there is nothing to help through educational innovations. But if land-based development is accepted as a goal, there is a great deal that logical educational investments can accomplish.

The Berwick Settlement Group lies in the fertile lowland that has already experienced some success in the development of a food processing industry. There would seem to be an opportunity of great potential in this innovation. Food processing could provide an assured outlet for a land-based development in this settlement group. Expansion already foreseen includes mutton, beef and fish processing which would offer a measure of security to stock farmers and fishermen. It is conceivable that other industries such as bone and leathercraft manufacturing would 'spin-off' growth in processing to start the growth of agro-industries.

The educational inputs which have the capability to contribute to a rapid development along these lines are community education, on-the-job training and outreach, nonformal education. Should the change to a land-based economy be accepted as the new thrust of the Berwick Settlement Group, then community education should be assigned the job of teaching the attitudes, expectations and community re-organisation that must be accepted with the new life-style. This would be a major assignment and should be allocated 5 per cent of all educational investment. On-the-job, in-service training would be required to up-grade the skills not only of those in businesses and industries currently producing goods and services for external markets, but also those in agricultural and fishing operations essential to the success of landed development. Because the number of these people would still be small compared to the number that would be involved in an industrial area, 10 per cent of educational funding would suffice. Outreach, nonformal education, on the other hand, would have a large task to train the new work-force, to prepare the management level personnel, the technicians,

the sub-professionals, for the multi-faceted estates and farms, the processing plants, the marketing boards. It would have the task too, to train the communities in the personal-family management necessary to the new life-style. Thirty-three per cent of all resources available to education should be allocated for this task.

As landed development would be the basis of the sub-region economy in the future, the formal education programme should emphasize vocational and business training pertinent to this development.

The Kelso Settlement Group

This group is the third of the four groups whose focuses lie outside Berwickshire. It has already been discussed as it corresponds to the Kelso catchment area considered in the Roxburghshire Landed Development Strategy. Since the Berwick report recommends little for this group other than the support of expansion plans for Kelso, no further comment is required. The reader is referred to the Kelso District appraisal.

The Dunbar Settlement Group

The focus of this group is Dunbar, in East Lothian. Again the Berwick report recommends very little development for the three settlements in Berwickshire. Some housing is suggested for Cockburnspath and development of Cove as a recreation centre is proposed, but no investment is recommended for Grantshouse. There is little scope for educational development in these recommendations. The plan for Cove is the only initiative and this tiny settlement has just 30 residents and a target population of 40. The total population of the settlement group, 360, provides little scope for

a development strategy. Since development in this area will depend on regional development in the Borders and the Lothians, educational allocations should parallel those for the region.

Isolated Settlement Group

The Isolated Settlement Group covers a large territory in the uplands with a small (200) population. The usefulness of the land is restricted by the effects of altitude, exposure, poor soil and low rainfall. Grazing is the major enterprise, but grouse shooting, pony trekking, hill walking and limited afforestation contribute to the economy. Maximization of the potential of these enterprises should be encouraged by the enlargement of knowledge and competence through nonformal education. The concerns of special interest groups, (grouse shooting versus public recreation, for example), increases the desirability of a programme of community education to increase understanding of apparently conflicting uses and to dispel false fears. Outreach, nonformal education is the only form of adult education likely to reach many people in such a remote and scattered population. It should be relied upon for any development attempted.

However, considering the numbers involved and the kinds of development envisaged, no changes from the regional allocations are recommended.

The Johnson-Marshall Report

The recommendations of the Johnson-Marshall Report may be summarized as:

1. Concentration of development in a central corridor between Galashiels and Newtown St. Boswells;
2. co-ordination of facilities and amenities throughout the Central Borders in a "regional city" context;
3. development of Tweedbank as a housing estate and industrial park;
4. immediate development of a 100 acre industrial site near St. Boswells and acceptance of other planned sites;
5. a twofold increase in housing construction to accommodate the 25,000 additional population anticipated by 1980;
6. concentration of road improvements on the A68 and feeder roads;
7. development of Galashiels as the commercial centre, of Newtown St. Boswells as the administration centre, of Melrose as the cultural centre and of Peebles as the convention centre.

Realization of these goals depended on acceptance of the strategy by local authorities and the Borderers themselves, a halting of the exodus of young people from the region, attraction of new industries to the region or large-scale expansion of existing industries, improvement in transportation facilities connecting the various parts of the region and government support and funding of the strategy. Some of this support was forthcoming and some was not. As a consequence, as noted in Chapter VII, the Johnson-Marshall strategy failed to achieve significant implementation in the five years immediately following its publication.

The failure may be attributed, in large part, to failure to win general acceptance or to halt the outflow of the young. Legal delays at Tweedbank, deterioration in transportation facilities and

the unfortunate conjunction of inflation and recession, also played a part, but the first two causes appear to share the major responsibility for the failure.

Both acceptance of the strategy and encouragement of the young to remain in the Borders are objectives which fall within the compass of community education. This was of such central importance to the strategy that a major programme was warranted to which 6 per cent of all educational resources should have been committed from 1968 to 1970. Of all forms of educational investment, it has the greatest potential for "readying" a population to accept new directions for their individual lives and reorientation of their community goals.

The advantages of outreach, nonformal education and of on-the-job, in-service training in the preparation of new workforces and the up-grading of existing ones have been stressed many times already. They would have been particularly useful in the initial stages of implementation of the Johnson-Marshall strategy when 6,400 new residents were to be added to the central corridor along with corresponding expansion of the industrial base. Increased educational investments of all kinds would have been needed to cope with this influx. Outreach, nonformal education should have received 30 per cent and on-the-job, in-service education 14 per cent of the enlarged grants during the peak years of immigration and industrial growth. Had the growth failed to materialize or plateaued suddenly, these educational programmes are sufficiently flexible that adjustments could have been made without difficulty.

Summation

This study began with two purposes, to lay the groundwork for an integration of educational and development planning in the Borders and to suggest an alternative to a machine-intensive economy for the region. It was rooted in the proposition that the kinds and amounts of educational investment a community makes influences its social and economic development, a proposition well documented in the literature. It utilized a framework developed by Gale Jensen and tested in a number of economies at different levels of development. It focused on the contribution of adult education, broadly defined, to the advancement of social and economic development over relatively short time spans.

What is the justification for this approach? Is there a substantial body of research documenting the contribution of outreach, nonformal education, on-the-job, in-service education and community education to the development of educational resources as advocated in this study? Is there authoritative support for the utilization of educational planning frameworks such as the Jensen framework? Indeed there is. One need look no further than Harbison's "Human Resources as the Wealth of Nations"⁴² to find abundant evidence of an affirmative response to both questions. The literature of economics and education is replete with experiments and case studies conducted in recent decades which testify to the growing confidence with which planners of a variety of backgrounds are turning to predictive frameworks of this kind to project educational resource development necessary to the programmes they propound.

⁴² Harbison, F. H. Human Resources and the Wealth of Nations. McGraw-Hill, New York, 1973.

Does the literature provide an unequivocal endorsement of any of the frameworks thus far devised? By definition, predictions are based on future possibilities. There can be no guarantees. There can be no such thing as absolute documentation. The frameworks enable the researcher to make a rational assessment, based on a thorough analysis of past experience in the study region, to judge what would be needed to provide the educational resources to move the economy from one stage to another. Politicians must then make the decisions.

Models, schemata and projection routines provide the planner with methods of fashioning some image of future possibilities in human resource development. Crude routines, they do not shape the future and they may not reveal it very accurately.⁴³

.....

Manpower projections could fall quite wide of the mark and still serve a useful purpose. If the target figures motivate political decision makers to provide resources to education and training in order to insure future economic growth, then the manpower approach is not in vain ...⁴⁴

On the other hand there is impressive evidence of the effectiveness of outreach, nonformal education, on-the-job, in-service training and community education to accomplish the tasks assigned to them in this study. For the first, (characterized most often by ungraded, continuing and adult or further education programmes), one may turn to the U.N.E.S.C.O. studies.⁴⁵ For the

⁴³Davis, Russell G. Planning Human Resource Development: educational models and schemata. Rand McNally and Company, Chicago, 1966, p. 237.

⁴⁴Ibid. p. 63.

⁴⁵U.N.E.S.C.O. Economic and Social Aspects of Educational Planning. U.N.E.S.C.O. Publication Centre, New York, 1964.

second, (exemplified by specialized training conducted in the work setting for purposes of increasing the productivity of the economic enterprises that initiate and support the training), Harbison,⁴⁶ and Harbison and Myers,⁴⁷ provide considerable support. The third, (typified by radio programmes, movies, television, mass distribution of pamphlets, neighbourhood meetings or study groups devoted to understanding problems of the community), is illustrated by Jensen and Medlin.⁴⁸ The task of the researcher is to discover the appropriate combinations of these elements that will advance development in his study area. As Jensen puts it,

.. to simply invest in education as a means of fostering economic development is not enough. If the educational development of human resources is to contribute effectively to community economic development, educational investments must be made in the right amounts and be of the right kinds. This assertion implies a kind of educational planning that takes into account (a) the different kinds of educational enterprises in which investments may be made, (b) the existing level of economic development of a community and (c) the potential of the different kinds of educational enterprises to contribute to the economic advancement of communities functioning at different levels of economic development. From this approach there emerge optimum patterns for allocating educational investments at different levels of economic development. In short, each of the patterns provides a framework for making investment decisions that will optimize the contributions that the educational development of human resources can make to community economic development.⁴⁹

⁴⁶ Harbison, op. cit.

⁴⁷ Harbison, Frederick and Myers, Charles A. Education, Manpower and Economic Growth, McGraw-Hill, New York, 1964.

⁴⁸ McKenna, Francis R. and Medlin, William K. "Education and Political Development in Soviet Central Asia", and Jensen, Gale Edw., "Relationships between Educational and Economic Development: An Interpretation of Soviet Policies", in Jensen, Gale Edw. and Medlin, William K., (eds.) Readings on the Planning of Education for Community and National Development. ("Problems in Education and Nation Building" Vol. I, Ann Arbor Publishers, Ann Arbor, 1969.)

⁴⁹ Jensen, Gale Edw. The Educational Development of Human Resources for Community Economic Development. ("Graduate Study Program of Education and Community Development", Occasional Paper Two, School of Education, The University of Michigan, Ann Arbor, Michigan, 1974), p. 15.

This study followed that prescription.

The second objective was to suggest an alternative to a machine-intensive economy for the region. The Borders is an agricultural area that has been by-passed by modern industrialization. Heretofore, this has been regarded as a disadvantage. Perhaps it can be turned into an asset.

The world faces two crises that bear on rural development, population growth and the energy shortage. The growth of population is compounded by migration from the farms to the towns and cities and the consequent abandonment of agricultural land. With reference to this Schumacher has said,

To restore a proper balance between city and rural life is perhaps the greatest task in front of modern man. It is not simply a matter of raising agricultural yields so as to avoid world hunger. There is no answer to the evils of mass unemployment and mass migration into cities, unless the whole level of rural life can be raised, and this requires the development of an agro-industrial culture, so that each district, each community, can offer a colourful variety of occupations to its members.⁵⁰

It is just such a culture that is proposed in this study.

The presence of the great estates in the Borders gives the region a unique opportunity to lead the way toward a land-based economy. The size of the estates is such that the "colourful variety of occupations" are possible, and the settlement pattern of an agrarian life-style, although thinned out, is still in place. There is as well, an agricultural population large enough to man the first stage of the venture.

⁵⁰ Schumacher, E. F. Small is Beautiful. Harper and Row, New York, 1973, Perennial Library edition, p. 204.

As to the second crisis, there can be no doubt that the world must come to terms with an energy depletion rate that threatens to throttle modern industry within the foreseeable future. A new technology must be devised that accepts the finiteness of our natural resources. Schumacher proposes an "intermediate technology, a technology with a human face".

.. it is a vastly superior technology to the primitive technology of bygone ages but at the same time much simpler, cheaper, and freer than the super-technology of the rich. ... - a technology to which everyone can gain admittance and which is not reserved to those already rich and powerful.⁵¹

The technology Schumacher proposes would fit well with a land-based economy, in fact would be designed for it. For it would be "conducive to decentralisation, compatible with the laws of ecology, gentle in its use of scarce resources and designed to serve the human person instead of making him the servant of machines".⁵²

The new direction proposed in this study runs counter to the trend of society for the past two hundred years and more. It is anathema to most economists. The litany of economists has run something like this: What is it that without which there is no prosperity? Response - Constant Growth.

What is the only viable technology?

Response - The latest and the biggest.

What is the goal of mass production technology?

Response - The elimination of workers.

But the workers are not eliminated. They are simply put out of work.

⁵¹Ibid. p. 154.

⁵²Ibid.

Or they are hired by government to cope with the thousands of others out of work. And herein lies the third of the problems a land-based economy can help to solve.

In any economy those who produce and sell, finance everything. All exports, all capital equipment and everything that is bought in shops is produced and sold by someone. Not all workers are producers, however. Civil servants, soldiers, school teachers, social workers and pensioners produce nothing that is marketed, but they have to buy goods and services. What they buy is financed from the taxes paid by the workers and companies that produce and from Government deficits which allow non-producers to spend.

The fraction of the population that produces nothing has risen sharply in recent years. This means that those who produce are taxed more and have to get along on less. They react by demanding higher wages and accelerate the upward spiral of costs and taxes. In Britain the share left to producers has fallen drastically in the past 20 years. In 1975 non-producers obtained 37 per cent of marketed output in Britain.⁵³ The purchases of the non-producers has reached the stage that they are undermining the economy. This is not unique to Britain, the problem is everywhere apparent in the western world, but it poses a serious threat to economic stability. In this, as in the two world-wide crises, land-based development can reverse the trend; more people can be employed, less government assistance is needed, less of our limited and expensive resources are used up, fewer non-producers burden the economy.

⁵³The Globe and Mail, (Toronto), June 28, 1977, p. 7. An article by Walter Eltis, visiting professor of economics in the department of political economy, University of Toronto.

The problems are real, they are serious and they are not going to go away. Assuming that a land-based economy is a viable alternative in the Borders and in the absence of an intermediate technology 'ready made' for the region, how can the changeover be affected? A special working party may be appointed consisting of members of the regional council, estate owners and managers and representatives of farmers and merchants, to study, and where feasible, to put into practice the proposals in this study. It will not happen overnight. There is much yet to be considered in each sub-district of the region. But it will be a beginning. It will be an acceptance of the realities of our finite world and our overburdened economy and a first step toward restoring a balance.

As Schumacher, in "Small is Beautiful", concludes,

The type of realism which behaves as if the good, the true, and the beautiful were too vague and subjective to be adopted as the highest aims of social or individual life, or were the automatic spin-off of the successful pursuit of wealth and power, has been aptly called "crackpot-realism". -Everywhere people ask: "What can I actually do?" The answer is as simple as it is disconcerting: we can, each of us, work to put our own inner house in order. The guidance we need for this work cannot be found in science or technology, the value of which utterly depends on the ends they serve; but it can still be found in the traditional wisdom of mankind.⁵⁴

⁵⁴Schumacher, op. cit., p. 297.

Chapter 9. Conclusion

It is one thing to construct a theoretical strategy for development and quite another to put it into effect. The gulf between the two is littered with the wreckages of plans that failed, or failed to gain acceptance. It is circumspect, therefore, to consider some of the restraints that militate against the realization of the proposals in this study. A logical manner in which to do this is to pose questions which must arise in reaction to the proposals and frame responses to the questions. This procedure is followed below.

Question: The proportion of educational resources allocated to the three components of the education of adults used in this study is forty-eight per cent. Is there any real prospect that the Regional Education Committee will allot such a large part of its funds to these programmes?

From a pragmatic point of view this is a non-question. Statutory provisions take so much of the Committee's budget that there is little left for selective dispersion in the most affluent times. Under the financial stringencies of the 1970's, the Committee has difficulty enough meeting their legal obligations. But in any event, the question is based on a misunderstanding of the proposals; the funds are not expected to come from present education authority budgets. The allocations read "of all resources available for education". The question might more properly have asked what these resources include.

The framework encompasses all forms of education and training but emphasizes community education, nonformal education and in-

service training. A great deal of the resources devoted to education are allotted to these areas already. It is not necessary to expropriate to the education authority all the funds presently spent on these schemes to put the study proposals into effect. It is important to know what the schemes are, what they are accomplishing and what are the costs. At present, because of the complex of authorities involved and the range of expenses subsidized, total expenditure within a region is unknown. It is suggested that the officer recommended by the Alexander Committee, to be appointed to the staff of each education authority "of at least Assistant Director of Education grade with the sole responsibility for securing adequate provision of adult education",¹ should be apprised of all government funding for educational purposes within his region, for any of the purposes mentioned above, and that he should be given a co-ordinating role in the provision and funding of such programmes. It is further suggested that his remit be worded "adequate provision for the education of adults".

A brief outline of some of the schemes that draw on resources allocated to education, will suffice to indicate the magnitude of the funding provided.

Industrial Training Boards are funded under provisions of the Industrial Training Act 1964. The Act has three major objectives:

¹Scottish Education Department, Adult Education: The Challenge of Change. Report by a Committee of Inquiry appointed by the Secretary of State for Scotland under the Chairmanship of Professor K. J. W. Alexander, H.M.S.O., Edinburgh, 1975, p. x.

- (1) to ensure an adequate supply of properly trained men and women at all levels in industry;
- (2) to secure an improvement in the quality and efficiency of industrial training;
- (3) to share the cost of training more evenly among firms.²

It requires each Board (Boards are to be established for all activities of business and commerce) to publish recommendations on the training of employees at all levels. In order to carry out this responsibility each Board analyses all operating procedures in the industry, prepares, or helps in the preparation of manuals detailing the training of operatives and instructors, and supplies training officers with aids such as progress measurement sheets, daily and weekly work sheets and course progress charts. Boards control the dispensation of training grants to firms within their industries and have the responsibility to see that the firms meet all the requirements of the Act. To this end they request that each firm prepare an overall training policy, and operative training statements for each operation included in their programme. Local Field Training Officers are employed by the Board: to assist firms with the preparation and operation of their training plans; to help them select appropriate standards and procedures for their programmes; to keep company training officers informed of changes in technology as they occur and of retraining necessary to prepare operatives for the new machines or techniques; and to help make arrangements for further education courses. Once a training programme is prepared

²Ministry of Labour, Industrial Training Act: General Guide: Scope and Objectives, Scottish Headquarters, Edinburgh, October, 1966.

This Act has been superseded by the Employment and Training Act 1973, but the purposes and provisions outlined here remain substantially the same.

by a firm and approved by a Training Board, grants are provided for the implementation of the programme. It is of interest to note, however, that where a substantial amount of training is required the education authority becomes directly involved, because day-release, or the equivalent, is usually a condition of the training grant.³

The cost of maintaining a single training board to carry out all these duties, is obviously substantial. When this amount is multiplied by the number of training boards, the total, even at a regional level, must represent a significant proportion of all educational investments in the region. Although the main source of a board's income is expected to come from its levy on employers, supplements by the Ministry in the form of loans or grants may constitute a significant proportion of the expenditure of the board.

The Manpower Services Commission was established to implement the provisions of the Employment and Training Act 1973. It has two executive agencies, the Training Services Agency and the Employment Service Agency. The Commission is largely autonomous, but is accountable to the Secretary of State for Employment through whom its resources are funded. The Training Services Agency alone has a staff of 7,500. The T.S.A. budget for 1976/77 will be about £285m.⁴

³Knitting, Lace and Net Industry Training Board. Training Recommendation 3: Operatives, Sherwood Rise, Nottingham, June, 1970, p. 28.

⁴Manpower Services Commission. A Short Review: Activities and Plans of the Training Services Agency. Training Services Agency, London, 1976, p. 5.

The Training Services Agency operates through three divisions: an industry division, primarily concerned with helping industry to meet its training needs; a training opportunities division to look after the training needs of individuals at 60 (soon 72) training centres called Skillcentres and at Colleges of Further Education; and a directorate of training with the responsibility to improve the training system. These divisions are supported by three service branches, for planning, for corporate services and for marketing and public relations.

The Agency's work is organised within a framework of programmes designed to produce the best joint result from the four main parts of the national training system. These can be seen as the educational input related to the field of work, initial job training; internal labour-market training by firms; and adult education and training through the Agency's Training Opportunities Scheme.⁵

The remit disclosed in this quotation echoes a major theme of this study, the co-ordination of vocational training from formal education through job preparation, up-grading, retraining and adult education. The quotation refers mainly to in-service training, but the mention of the Training Opportunities Scheme (T.O.P.S.), refers to a programme for unemployed individuals or for those who wish to leave their employment to take a full time training course. It is an excellent example of nonformal education. Later on the booklet refers to marketing and public relations and the need "to gain support for the training system's objectives and products".⁶ To this end the agency employs the methods of "advertising, television, press and poster displays, promotional publications, films and audio-visual

⁵Ibid. p. 6.

The use of the term "adult education" here is noteworthy. It is a clear reference to vocational instruction in a publication of a government established agency.

⁶Ibid. p. 8.

aids; and market research to test public attitudes and the responses of individuals",⁷ a clear use of community education.

A few details and statistics will suffice to indicate the breadth of the T.S.A. programmes and expenditures. The Agency relies on the Industrial Training Boards to service the private industrial sector. For the nationalised industries, public service and such private sectors as banking, insurance and port transportation, assistance is given to existing institutions where these exist or new ones are encouraged. All the working expenses of the I.T.B.'s plus grants for special training activities are provided by the Agency. Where I.T.B. coverage is not available to public and private employments, the T.S.A. is working to establish similar policies. In addition a number of direct training schemes are provided.

The T.O.P.S. provision for training individuals, offers 800 different courses. In 1975, the programme trained 60,700 people.⁸ T.O.P.S. courses are fully funded by the government and trainees are paid a wage (tax-free), get free midday meals, travelling expenses, lodging allowances (if living away from home during training), fees for examinations and family allowances.⁹ The courses are normally for six months or a year.

T.S.A. offers training awards, in effect subsidies to employers to hire and train more workers than they would otherwise take on,

⁷Ibid. p. 9.

⁸Ibid. p. 8.

⁹Manpower Services Commission. Train for a Better Job with T.O.P.S. Training Services Agency, Edinburgh, 1976.

"adoption grants" to encourage employers to retain workers otherwise slated for redundancy and grants to ensure that college based sandwich course students receive industrial experience. Through these schemes 30,000 additional training places have been found in industry and the combined I.T.B. and T.O.P.S. scheme has been expanded from a planned 68,000 trainees to 81,000.¹⁰

It is clear that the resources available to the Training Services Agency schemes too, are substantial.

Programmes with a training or educational component eligible for government assistance, may be identified across the whole of the employment spectrum. The costs involved represent a large part of the allocations in the proposals. What is missing is the co-ordination and direction of the expenditures according to a strategy designed specifically for the Borders. A specific provision of the Industrial Training Act suggests an arrangement to facilitate this co-operation. Individual Industrial Training Boards may "delegate some of their executive functions to regional, district or local committees. The Act places no restrictions on the patterns of committees (including joint committees with other boards) which a board may propose."¹¹ The only requirement is that the arrangements must be approved by the Minister. With the agreement of all or most of the boards in the Borders Region, a regional board could be established, preferably with the new education officer

¹⁰ Manpower Services Commission. A Short Review. op. cit. p. 10.

¹¹ Ministry of Labour, op. cit. p. 13.

recommended in the Alexander Report as the permanent chairman. There would be a number of advantages in such an arrangement not the least of which would be the opportunity to establish a data centre for the compilation and auditing of all programmes of education, training or self-help receiving government subsidy in the region. In this way the educational committee could ensure that they are cognizant of all training schemes within their region; they would have the opportunity to co-operate with other providers and have input into the design of all courses; and they would have the information needed to plan programmes to round out or infill where shortfalls are detected.

Another provision of the Act requires each board "to consider the volume of training which will be required in the light of future economic and technical changes."¹² The regional board would provide a convenient avenue to the realisation of this obligation for individual boards.

It will have been noted that the tasks assigned to community education and nonformal education in the study clearly infringe into the purviews of community development, community service and youth service. It has been an accepted premise of this paper that education is only one part of the process of growth training and development and that there are no clear boundaries between these services. This is far from a new point of view. The Standing Consultative Council on Youth and Community Service of the Scottish Education Department, in their 1968 report, "Community of Interests", stated:

¹²Ibid. p. 9.

It is apparent that no clear line of demarcation can be drawn between the leisure time opportunities provided by secondary schools, the Youth Service, vocational colleges, the evening class centre, the community centre and sports organisations. The activities of each overlap those of at least one of the others. Overlap of activities among organisations seems inevitable for while each starts off with its own purposes in view, it finds, as it responds to the emerging needs of the individuals whom it seeks to serve, that its immediate objectives multiply and in time extend over those of other organisations whose starting points may well have been different.¹³

The report commends the introduction of a common professional course for youth and community workers twenty years earlier.

There are many more examples which extend the principle of co-ordination beyond the recommendations of the Consultative Council.¹⁴ One of the most successful is the Ayrshire experiment. There the education authority took on the responsibility permitted it under the Education (Scotland) Act 1969 to link the youth service, the community service and the formal education system. The experiment began with a concept of community development close to the definition advanced by Biddle and Biddle, "a social process by which human beings can be helped to become more competent to live within and gain some control over local aspects of a frustrating and changing world."¹⁵ It accepted that our society has changed so much

¹³ Scottish Education Department. Community of Interests. Standing Consultative Council on Youth and Community Service, Edinburgh, H.M.S.O., 1968, p. 51.

¹⁴ Not the least of these is Recommendation 4 of the Alexander Report that: "Adult education should be regarded as an aspect of community education and with the youth and community service, should be incorporated into a community education service." Scottish Education Department, loc. cit.

¹⁵ Biddle, William W. and Biddle, Loureide J. The Community Development Process: The Rediscovery of Local Initiative. Holt, Rinehart and Winston, Inc., New York, 1965, p. 78.

that the process of socialisation that has for generations been accepted as 'normal' in our society is no longer able to do the job. Thus every member of society increasingly needs help in understanding the demands made on him and the decisions expected of him. The nature of the learning requires that the educative process be one of mutual self-help involving common investigation of problems and common solutions. Borrowing from the French concept of 'animation' by which an individual is encouraged to develop the capacity to utilise the whole of the resources of his society to provide himself with a fuller, more satisfying life, the Ayrshire thesis postulated that, on this basis, Community Education and Community Development may be considered synonymous.* By 1974, those who had conceived the experiment were able to look back on five years of bold initiative with a good deal of satisfaction and a sense of vindication.¹⁶

Activation of the proposals in this study requires the involvement of workers in these related fields. The cost of their participation is included in the allocations. Many of this workforce are presently active in the region, frequently fulfilling roles similar to those projected in this study, but a co-ordinating agency and a development direction are missing.

When the expenditures outlined above are considered, it is evident that the allocations in the proposals are not as radically different from present outlays as they appear to be. The major distinction is the deliberate approach to all expenditures of

¹⁶"Community Development - Ayrshire's Experience". A report of the Community Development Conference held at the Turnberry Hotel, Ayr, November, 1973, passim.

*From the keynote address by Brian Ashley, Principal, School of Community Studies, Moray House College of Education, at the Community Development Conference at the Turnberry Hotel, November, 1973.

resources available for education, as 'investments' to achieve a preconceived social and economic climate for development, according to a formula derived from a posteriori analyses of other regions where rapid development has been successfully achieved.

On the other hand, one of the most difficult hurdles standing in the way of implementation of the proposals is the commitment of workers and professionals in related disciplines to the specific tenets of their training. Only if they can be convinced that these are largely tautological will the necessary integration be possible.

Question: Where will all the adult educators come from to man the programmes proposed?

The point has already been made that education is only one part of the process of growth, training and development envisaged, and that workers from a variety of disciplines are needed to carry out the proposals. Although the Alexander Report starkly revealed the shortage of full-time adult educators in Scotland¹⁷, it also emphasized that "the great majority of teachers in adult education therefore are and will continue to be employed part-time."¹⁸ This is equally true for the other services. It is also true that through the whole range of services volunteer workers have always carried a good deal of the load. Within industries in-service training will continue to be carried out by skilled personnel selected on the basis of their ability to communicate their competencies to others, rather than by professional educators. None-

¹⁷ Scottish Education Department, op. cit., pp. 80, 81.

¹⁸ op. cit.

theless to fully implement the proposals in the Borders Region would require many more full-time professionals and trained workers than are now available, but the study does not lay down a detailed manual of operations to do this. The organisation and planning for implementation is the next major task. Even then it is manifestly unrealistic to expect that the proposals will be received enthusiastically by all agencies. If the proposals are acted upon, this will be done gradually, a step at a time. There will be an opportunity to prepare the specialists and the trained workers along the way.

Question: Land-based development in the Borders requires the co-operation of the estate owners. Is this a reasonable expectation?

Land-based development on a large scale certainly requires the participation of the estate owners, but, here too, a start can be made on a modest scale. To be successful the land units should be capable of supporting a variety of enterprises, but an association of small farmers could put such a unit together. However the benefits anticipated are dependent in part on the generation of agro-industries and the re-establishment of agricultural service centres, the viability of which are contingent on a concentration of farming activity. Thus the participation of the estate owners is crucial for long term success or for full realization of the potential benefits.

Estate owners will naturally approach any new departure with caution. They will demand a number of assurances, including that

their ownership rights will not be infringed, that the benefits will be greater than under present management, that the right of withdrawal from the plan is continuously available, and that there will be no deterioration of their lands or buildings. Those who decide to participate will undoubtedly do so with the least dislocation possible to their present operation. Incentives provided should be offered initially in a manner that encourages this hesitant involvement. It is unlikely that participation will be forthcoming in any other way. It should be recognized as well, that any involvement of estate owners at all will be based on a careful analysis of costs and benefits. The incentives provided will have to be generous and lasting. Perhaps the most appropriate form these could take would be as tax reductions on profits derived from operations meeting conditions laid down for land-based development.

Question: Models for development, like those of Harbison and Myers or Jensen and Medlin, are not expected to be definitively accurate in their prediction of events and development. Where then does their usefulness lie?

Frameworks for predicting future educational or manpower needs provide criteria for making judgements. They are tools for planning, not plans. They have proven their usefulness because they have enabled governments to make rational decisions with respect to the investment of limited wealth in order to develop human resources needed for the social and economic development of their societies. They have not been completely accurate, they have failed to foresee some trends, and they have resulted in the overproduction of some

types of manpower, but their successes have so far outweighed their failures that they are now, in one form or another, part of the decision-making machinery of most countries in the world.

At the same time, social and economic conditions are constantly changing, so the frameworks must change also. As models they are useful only in so far as they provide insight and perspectives into future conditions. Unless they correctly reflect present circumstances and trends they can not do this. The frameworks are predicated on a thorough analysis of the nation or community to which they are to be applied. If the analysis is competently done, it is a useful exercise in itself. If it is not, the framework has little predictive value.

Nor is there any direct connection between educational input, shifts in the allocation of resources to education and alterations to educational systems on the one hand, and changed learning or behaviour on the other. Education can result in changed behaviour only if the educator and those to be "educated", together, see it as a two-way street. Only then will the recipient involve himself in the exchange of understandings and in the process of learning. But education is just one of many influences on human behaviour and on social and economic development. The frameworks should overlap the areas of other social and economic change-agents to encourage their involvement and co-operation. Without this co-operation, educational development alone will be insufficient to the task. In the Borders, as in Scotland generally, the variety of services that contribute to social, community and economic development have been separate, and their collective contribution fragmented. The

Jensen framework deliberately integrates much of this provision, aiming for the strength and economies that come from unity and common purpose. If it accomplishes this one goal, it accomplishes much.

Question: A major objective of the proposals is the halting of the flow of young people out of the region. Will community education really be able to convince 15 and 16 year-olds to change their hopes for high wage employment and a modern, urban life-style and settle for life on a farm?

No! Initially, land-based development will rely on those presently on the land, on those who wish to work beyond retirement age and on the few who, because of unemployment in other sectors, opt for the landed workforce. As the land-based economy progresses it will have to raise wages and working conditions to compete with the attraction of town and city employment. Monetary incentives are likely to be of major significance in the early stages of the project. Antipathy for the hard work, long hours, low pay and isolation of farm life will be one of the most difficult constraints to the realization of the proposals. Community education should have a greater effect on older members of the community and, over time, should have an effect across the whole age span.

Question: One half of one per cent of the formal education budget is allocated for "initiatives" to attract a university campus to the Borders. How is a university to afford this considering present financial restrictions?

There is no necessity to build a physical campus or to provide a full-time staff to the campus proposed. Lectures in a number of disciplines may be delivered in school classrooms, church halls or even private homes. Provision of full-time lecturers to a remote campus of this kind would undoubtedly result in the relegation of "expendables" to a dead-end posting. This would not be in the best interests of the Borders or the University. Rather, lecturers on the regular staffs in Edinburgh, should be assigned for courses or for terms to the Border campus. In this way the Border students could benefit from the best the university had to offer and the university may be kept informed of what is happening in their satellite. A director of courses with a small office and secretarial pool would be the only full-time staff required in the Borders for some time.

Question: The study seems at times to suggest that an increase in educational investment always results in growth in the Gross Regional Product. Is this intended?

No! The excessive concern with G.N.P. (or G.R.P.) in early development studies has been criticized for many years. This is only one measure of development and in agricultural areas or areas with large civil service bureaucracies it can be quite misleading.

In many cases the over-all growth of the G.N.P. conceals a growing disparity between modern and traditional parts of the national economy, between various regions of the country, and between different social groups. It may thereby strikingly distort the picture of the actual progress achieved, as far as the bulk of citizens are concerned.¹⁹

¹⁹U.N.E.S.C.O., International Institute for Educational Planning, Manpower Aspects of Educational Planning: Problems for the Future. Paris 1968, Introduction by George Skorov, p. 17.

At several points in the study the point was made that not all educational investments contribute to economic growth, but that investments of the wrong kind may slow down or retard development. Inputs must be of the right kind and of the right amounts for optimum benefit.

On the other hand, the consumption component of education should not be forgotten. As noted in Chapter I, as affluence increases within a community demand for education increases. People value education, whether as academic studies, or as recreational or leisure pursuits and a free society must meet this demand to the best of its ability.

Addendum

In Chapter I a number of complicated formulae were mentioned which have been developed by economics of education theorists and others. By quantifying a host of factors which play a part in economic development, these formulae reduce the prediction of educational needs to a mathematical computation. They are ingenious and frequently isolate the effect of specific factors. However, for the most part, these have not proven more useful in predicting benefits than intuitive models based on simpler analyses and manpower projections. As Skorov comments in his introduction to the report of the 1966 symposium of the International Institute for Educational Planning,

All the coefficients seem to vary from one sector to another, from one country to another and from one time to another.

.....
If, on the other hand, we accept a greater flexibility in these relationships because of the possibility of substitution between occupational categories and between types and levels of training, then any simple mathematical basis for calculating an optimum manpower structure vanishes.

.....
All manpower projections will inevitably be subject to a degree of error and could only be as valid as the data and assumptions on which they are based. There is no substitute for thorough empirical study as a basis for manpower projections and educational planning.²⁰

The Jensen framework relies on a thorough empirical study. It emphasizes components of the education of adults which can develop human resources quickly. It is flexible in application and easily adjusted to changed circumstances. It was specifically developed to be applicable at a regional or community level. It seems now to be as appropriate a choice for this study as it did at the outset.

Sic factum est.

²⁰Ibid. p. 20.

Selected Bibliography

There is an ample literature in the economics of education, adult education, community development and youth and community service. The short list below contains only those quoted and a cross-section of those found useful in the completion of this study. For others the reader is referred to one of the several good published bibliographies, particularly those of Blaug, Bowman and Paulson.

- Abstract of Regional Statistics. No. 5, Central Statistical Office, H.M.S.O., London.
- Adelman, Irma and Thorbeck, E. (eds.). The Theory and Design of Economic Development. The John Hopkins Press, Baltimore, 1966.
- Ayr County Council Education Committee, Community Development Service, Integrated Community. Youth and Community Service Report 1971-1974, Ayr, 1974.
- Ayr County Council Education Committee. Report on Conference on Community Development and Education. Turnberry Hotel, Ayrshire, November 23-25, 1973.
- Batten, T. R. Communities and their Development: An Introductory Study with Special Reference to the Tropics. Oxford University Press, London, 1952.
- Beard, B. (ed.), The Effect of Technological Progress on Education: A Classified Bibliography from British Sources 1945-1957. Institute of Production Engineers, London, 1959.
- Becker, G. S. Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. Princeton University Press, Princeton, 1964.
- Beeby, C. E. The Quality of Education in Developing Countries. Harvard University Press, Cambridge, Mass., 1966.
- Bell, R. R. (ed.). The Sociology of Education: A Source Book. Dorsey Press, Homewood, Illinois, 1962.
- Bennis, Benne and Chin. The Planning of Social Change: 2nd Edition. Holt, Rinehart and Winston, London, 1970.
- Benson, Charles S. Perspectives on the Economics of Education. Houghton Mifflin Company, Boston, 1963.

- Benson, C. S. The Economics of Public Education. Houghton Mifflin, New York, 1961.
- Berwick County Council, Report of the Planning and Development Officer. Earlston: Population and Employment. Duns, 6 July, 1971.
- Berwickshire County Planning and Development Office. A Rural Policy for Berwickshire. Berwick County Council, Duns.
- Biddle, William W. and Biddle, Loureide J. The Community Development Process: The Rediscovery of Local Initiatives. Holt, Rinehart and Winston Inc., New York, 1965.
- Bilton, J. A. Housing and Industry in the Counties of Peebles, Roxburgh and Selkirk. Regional Planning Unit and Joint Planning Advisory Committee, Selkirk County Offices, Galashiels, February 1974.
- Blaug, Mark. Economics of Education: A Selected Annotated Bibliography. Second Edition, Pergamon Press, Oxford, 1970.
- Blaug, Mark. Economics of Education. Penguin Modern Economic Readings, Penguin Books, Harmondsworth, 1968.
- Borders Regional Planning Unit and Joint Planning and Advisory Committee. The Central Borders: Housing and Industry Survey. Selkirk County Offices, Galashiels, February 1974.
- Borders Regional Planning Unit. A Profile of the Borders 1974: Interim Report. Newtown St. Boswells, June 1974.
- Bowman, Mary Jean, et al. Readings in the Economics of Education. U.N.E.S.C.O., Paris, 1971.
- Brokensha, David and Hodge, Peter. Community Development: An Interpretation. Chandley Publishing Company, San Francisco, 1969.
- Commission on Post-Secondary Education in Ontario: The Learning Society. Ontario Government Publications, Toronto, 1972.
- Coombs, Richard H. and Hallack, Jacques. Managing Educational Costs. Oxford University Press, London, 1972.
- Coombs, R. H., Prosser, R. C. and Manzoor, Ahmed. New Paths to Learning for Rural Children and Youth. New York, 1973.
- Coombs, R. H. The World Educational Crisis: A Systems Analysis. International Institute for Economic Planning, U.N.E.S.C.O., Paris, 1967.
- Correa, H. The Economics of Human Resources. North-Holland Publishing Co., Amsterdam, 1963.
- Davis, Russel C. Planning Human Resource Development: Educational Models and Schemata. Rand McNally, New York, 1966.

Department of Employment, Employment Exchange Statistics.
Edinburgh, 1968.

Digest of Scottish Statistics. No. 36, Economic and Statistics
Unit, H.M.S.O., Edinburgh, 1970. (and for 1971, 1972, 1974)

Donaldson, Peter. Worlds Apart: The Economic Gulf between Nations.
British Broadcasting Corporation, London, 1971.

Dreitch, K. M. and McLoone, E. P. The Economics of American
Education: A Bibliography. Including Selected Major
References for Other Nations. Phi Delta Kappa,
Bloomington, 1966.

Finlay, Ian. The Lowlands. B. T. Batsford Ltd., London, 1967.

Fisher, Irving. The Nature of Capital and Income. MacMillan,
New York, 1966.

Fraser, George MacDonald. The Steel Bonnets. Pan Books Ltd.,
London, 1974.

General Register Office. Census of Scotland 1951. Vol. 3,
General Volume. H.M.S.O., Edinburgh, 1954.

General Register Office. Census 1961 Scotland. Vol. 3,
Age, Marital Condition and General Tables. H.M.S.O.,
Edinburgh, 1965.

General Register Office. Census of Scotland 1971: County Reports.
H.M.S.O., Edinburgh, 1974.

General Register Office. Census of Scotland 1971: Population
Tables. H.M.S.O., Edinburgh, 1974.

General Register Office. Census 1971 Scotland: Preliminary Reports
and Population Summary. H.M.S.O., Edinburgh, 1974.

Griffen, K. B. and Enos, J. L. Planning Development. Addison-
Wesley, 1970.

Gruer, Rosamond. The Needs of the Elderly in the Scottish Border
Counties. Department of Social Medicine, University of
Edinburgh, 1970.

Harbison, F. H. Human Resources and the Wealth of Nations.
McGraw-Hill, New York, 1973.

Harbison, F. H. and Myers, C. A. Education, Manpower and Economic
Growth: Strategies of Human Resource Development.
McGraw-Hill, New York, 1964.

Hawick Technical Working Party. Interim Report: Hawick into the
Seventies. Roxburgh County Council and Hawick Town Council,
Tweeddale Press, Hawick, 1970.

- Jensen, Gale, Liveright, A. A., Hallenbeck, Wilbur. Adult Education: Outlines of an Emerging Field of University Study. Adult Education Association of the U.S.A., 1964.
- Jensen, Gale Edw. and Medlin, William K. (eds.). Readings on the Planning of Education for Community and National Development. A Series, Problems in Education and Nation Building, Vol. 1, Ann Arbor Publishers, Ann Arbor, 1968.
- Kelso: Report of the Technical Working Party. Roxburgh County Offices, Newtown St. Boswells, February 1968.
- Knowles, Basil. A Rural Policy for Berwickshire. County Planning and Development Office, Council Offices, Southfield Lodge, Duns, 1972.
- Leite, Manuela Ferreira et al. The Economics of Educational Costing: Inter-County and Inter-Regional Comparisons. Centro De Economia E. Tinancas, Avenida De Berna, 1969.
- Lengrand, P. An Introduction to Lifelong Education. U.N.E.S.C.O., Paris, 1970.
- Liveright, A. A. and Haygood, N. (eds.). The Exeter Papers. Boston, 1968.
- Lowe, John (ed.), Adult Education and Nation Building: A Symposium on Adult Education in Developing Countries. Edinburgh University Press, Edinburgh, 1970.
- Lowe, John. Adult Education in England and Wales: A Critical Survey. Michael Joseph, London, 1970.
- Lowe, John. The Education of Adults: A World Perspective. Unesco Press, Paris, 1975.
- Macgregor, D. R. (ed.). The Borders Region. University of Edinburgh, Edinburgh, March 1974.
- Malassis, L. Economic Development and the Programming of Rural Education. U.N.E.S.C.O., Paris, 1966.
- Ministry of Reconstruction, Adult Education Committee. Final Report. H.M.S.O., London, 1919.
- Myint, H. The Economics of the Developing Countries. 4th (revised) edition, Hutchinson and Co. Ltd., London, 1973.
- New Educational Media in Action: Case Studies for Planners. Vol. I, International Institute for Educational Planning. U.N.E.S.C.O., Paris, 1967.
- O.E.C.D. Policy Conference on Economic Growth and Investment in Education. Vol. I, O.E.C.D., Paris, 1962.
- Paulson, Richard G. (ed.). Non-Formal Education: An Annotated International Bibliography. Praeger Publications, New York, 1972.

- Reform of Local Government in Scotland. H.M.S.O., Edinburgh, February 1971, Cmd. 4583.
- Registrar General for Scotland. Sample Survey 1966. H.M.S.O., Edinburgh, 1968.
- Robertson, C. J. (ed.). Scientific Survey of South-Eastern Scotland. British Association for the Advancement of Science, Edinburgh, 1951.
- Robinson, E. A. G. and Vaizey, John (eds.). The Economics of Education: Proceedings of a Conference held by the International Economic Association. McMillan, London, 1966.
- Roxburgh County Council and Hawick Town Council. Hawick: A Plan for Development. Technical Working Party Final Report, Tweeddale Press, Hawick, 1973.
- Roxburgh County Council and Hawick Town Council. Hawick: A Plan for Development: Summary and Final Statement. Tweeddale Press, Hawick, 1973.
- Roxburgh County Council. Kelso: Report of the Technical Working Party. County Offices, Newtown St. Boswells, February, 1968.
- Roxburgh County Council Planning Department. County of Roxburgh: Landward Community Development Strategy. Roxburgh County Council, Newtown St. Boswells.
- Roxburgh County Planning Department. Burgh of Kelso Policy Statement. Roxburgh County Council, Newtown St. Boswells, January, 1971.
- Roxburgh County Planning Department. Burgh of Kelso Policy Statement (revised). Roxburgh County Council, Newtown St. Boswells, February, 1972.
- Schools Council, Technology and the Schools. Working Paper No. 18, The Pilot Study of the Schools Council Project Technology, H.M.S.O., London, 1968.
- Schumacher, E. G. Small is Beautiful. Blond and Briggs Ltd., London, 1973.
- Schultz, Theodore W. The Economic Value of Education. Columbia University Press, New York, 1963.
- Scottish Border Local Authorities Joint Committee, District Advisory Committees. Recommendations. Roxburgh County Council, Council Offices, Newtown St. Boswells, March, 1974.
- Scottish Development Department. Monitoring Change in the Borders. An Internal Report prepared by Paul Gregory, 1970.
- Scottish Development Department, Roxburgh County Council, Jedburgh Town Council. The Royal Burgh on the Jed: Report of the Technical Working Party 1964. Roxburgh County Council Offices, Newtown St. Boswells, 1964.

- Scottish Development Department. The Central Borders: A Plan for Expansion. H.M.S.O., Edinburgh, 1968.
- Scottish Economic Planning Council. Quarterly Report: Border Special: A Plan for Development. Scottish Information Office, St. Andrew's House, Edinburgh, 1 April, 1968.
- Scottish Education Department. Adult Education: The Challenge of Change. Report by a Committee of Inquiry under the Chairmanship of Professor K. J. W. Alexander, H.M.S.O., Edinburgh, 1975.
- Scottish Education Department. Community of Interests. Standing Consultative Council on Youth and Community Service, H.M.S.O., Edinburgh, 1968.
- Scottish Education Department. Scottish Educational Statistics 1969. H.M.S.O., Edinburgh, 1970. (and for 1970, 1971, 1972)
- Scottish Office. The Scottish Economy 1965-1970: A Plan for Expansion. H.M.S.O., Edinburgh, 1966, Cmd. 2864.
- Sheehan, John. The Economics of Education: Principles and Applications. The Free Press, New York, 1971.
- Snow, Robert H. Community Adult Education: A Guide for Program Planning and Development. G. P. Putnam's Sons, New York, 1955.
- Svenilson, I., Elvin, W. L. and Edding, F. Policy Conference on Economic Growth and Investment in Education II. O.E.C.D., Paris, 1962.
- Tinbergen, J. Development Planning. World University Library, Weidenfeld and Nicholson, London, 1967.
- Tough, A. The Adult's Learning Projects. Ontario Institute for Studies in Education, Toronto, 1971.
- The Mediterranean Regional Project: Italy: Greece: Spain: Portugal: Turkey. O.E.C.D., Paris, 1964.
- The New Scottish Local Authorities: Organisation and Management Structures. Report of a working group appointed by the Scottish local authority associations, H.M.S.O., Edinburgh, 1973.
- U.N.E.C.A. Selected Bibliography: Manpower and Training Problems in Economic and Social Development. U.N.E.C.A., Addis Ababa, 1967.
- U.N.E.S.C.O. Economic and Social Aspects of Educational Planning. U.N.E.S.C.O. Publication Centre, New York, 1964.

U.N.E.S.C.O. Education in a Technological Society: A Preliminary International Survey of the Nature and Efficacy of Technical Education. Tensions and Technology Series, U.N.E.S.C.O., Paris, 1952.

U.N.E.S.C.O. Education on the Move. The Ontario Institute for Studies in Education, The Unesco Press, 1975.

U.N.E.S.C.O., International Institute for Educational Planning. Manpower Aspects of Educational Planning: Manpower Problems for the Future. Vaillant-Carmanne S.A., Liege, 1968.

United States Department of Labour. Manpower Report of the President and A Report of Manpower Requirements, Utilization and Training, by the United States Department of Labour. Department of Labour, Washington, 1963.

Vaizey, J. and Cheswass, J. D. The Costing of Educational Plans. Fundamentals of Educational Planning 6. International Institute for Educational Planning, U.N.E.S.C.O., Paris, 1967.

Vaizey, John. The Economics of Education. Faber and Faber, 1962.

Woodhall, Maureen and Ward, Vernon. Economic Aspects of Education. National Foundation for Educational Research in England and Wales, N.F.E.R. Publishing Company Ltd., Windsor, 1972.

Articles, Pamphlets, Outlines, Short Reports

Becker, Gary S. and Mincer, Jacob. "Dropouts and the unemployed". Journal of Political Economy. Vol. 73, 1965, no. 2.

Benard, Jean. "General optimization model for the economy and education". Mathematical Models in Educational Planning. O.E.C.D., Paris, 1967.

Blaug, M. "Approaches to Educational Planning", Economic Journal. June, 1967, pp. 262-88.

Bowles, S. "The Efficient Allocation of Resources in Education", Quarterly Journal of Economics, May, 1967, pp. 189-219.

Bowman, M. J. "Human Capital: Concepts and Measures". Economics of Higher Education in Bowman, M. J. et al. Readings in the Economics of Education. U.N.E.S.C.O., Paris, 1968, pp. 246-62.

Bowman, M. J. "The New Economics of Education", International Journal of Educational Sciences. Vol. I, 1, 1966, pp. 29-46.

- Corrazzini, A. J. "When Should Vocational Education Begin?", Journal of Human Resources, Winter, 1967, pp. 41-50.
- Denison, Edward F. "The sources of economic growth in the United States and the alternatives before us". Supplementary Paper No. 13, published by the Committee for Economic Development, New York, 1962, pp. 33-42.
- De Watt, N. Manpower Guidelines for Educational Policy Planning in the State of California. Consultant's Report prepared for the State Committee on Public Education, Berkeley, 1968. (mimeographed).
- Duncan, O. D. "Occupational components of educational differences in income". Journal of the American Statistical Association. December, 1961.
- Eide, K. "Educational Developments and Economic Growth in O.E.C.D. Member Countries", in Robinson, E. A. G. and Vaizey, John (eds.), Economics of Education: International Economic Association Conference. MacMillan, London, 1966.
- Gascoigne, M. "Manpower forecasting at the enterprise level: a case study". British Journal of Industrial Relations. March, 1968.
- Glick, P. C. and Miller, H. P. "Educational level and potential income", American Sociological Review. June, 1956.
- Hansen, W. Lee. "Total and Private Rates of Return to Investment in Schooling", Journal of Political Economy. April, 1963, pp. 128-41.
- Hope, K. "A Guide to Social Investment", Applied Social Studies. Vol. I, Pergamon Press, Oxford, 1969.
- Jackson, Keith. "The Marginality of Community Development: Implications for Adult Education". International Journal of Community Development. 1972.
- Jensen, Gale Edw. The Educational Development of Human Resources for Community Economic Development. Occasional Paper Two, Graduate Study Programme on Education and Community Development, School of Education, University of Michigan, Ann Arbor, 1974.
- Jewkes, John. "How much science?" Economic Journal. March, 1960.
- Knitting, Lace and Net Industry Training Board. Training Recommendations 3: Operatives. Sherwood Rise, Nottingham, June, 1970.
- Loveless, E. "Returns Expected on Investments in Education", Catholic Educational Review. October, 1967, pp. 475-83.

- Manpower Services Commission. A Short Review: Activities and Plans of the Training Services Agency. London, 1976.
- Ministry of Labour. Industrial Training Act: General Guide. Scope and Objectives. Scottish Headquarters, Edinburgh, October, 1966.
- Ministry of Technology. Incentives for Industry: In the Development Areas, Intermediate Areas and Northern Ireland. Central Office of Information, H.M.S.O., London, March, 1970.
- Modernisation of Local Government in Scotland. H.M.S.O., Edinburgh, 1963. Cmd. 2067.
- Page, G. T. "Canada's Manpower Training and Education: Federal Policy and Programs", Canadian Education and Research Digest. December, 1967, pp. 283, 98.
- Phillips, H. M. "Science and Technology in Economic Development", International Social Science Journal, Vol. XVIII, 3, 1966, pp. 325-44.
- Reder, M. W. "The theory of occupational wage differentials", American Economic Review. December, 1955.
- Registrar General for Scotland. Annual Estimates of the Population of Scotland 1970. H.M.S.O., 1971.
- Roxburgh County Council, Working Party Report. Eventide and Sheltered Homes. Council Offices, Newtown St. Boswells, January, 1971.
- Schaffer, W. G. "Investment in Human Capital: Comments", pp. 1026-35, and Schultz, T. W. "Reply", pp. 1035-39, American Economic Review. December, 1961.
- Sisco, N. A. "Canada's Manpower Training and Education: A View from Ontario", Canadian Education and Research Digest. December, 1967, pp. 299-304.
- Schumacher, E. G. "Industrialisation through Intermediate Technology", in "Cambridge conference on the role of industrialisation in development 1964", cited in Robinson, R. E. (ed.), "Industrialisation in developing countries", 1965, Old Schools, Cambridge, Overseas Study Committee, o.p. Reprinted in Meir, G. R. "Leading issues in development economics", O.U.P., New York, 1970.
- Schultz, T. W. "Education and economic growth", in Yearbook of the National Society for the Study of Education, 1961.
- Schultz, T. W. "Investments in Human Capital", The American Economic Review. II, March, 1961.
- Schultz, T. W. "Investments in Man: An Economist's View", Social Service Review. June, 1959, pp. 109-17.

- Schultz, T. W. "Reflexions on investments in man", The Journal of Political Economy. LXX, Supplement, October, 1962.
- Scottish Development Department. Rates and Rateable Values in Scotland 1969-1970. H.M.S.O., Edinburgh, 1970.
- Scottish Education Department. Community Service and Scottish Secondary Schools. The Report of the Committee on Community Service and the Schools, Curriculum Papers - 8, Consultative Committee on the Curriculum, H.M.S.O., Edinburgh, 1970.
- Scottish Education Department. Scottish Technical Education Consultative Council, Forest Committee. Interim Report on Croft Courses. Scottish Education Department, Further Education Branch, Edinburgh, September, 1966.
- Scottish Home and Health Department. Drug Misuse in Scotland. Report of a sub-committee appointed by the Consultative Committee of Medical Officers of Health in Scotland, S.H.H.D., Edinburgh, 1970.
- Scottish Home and Health Department, Scottish Health Services Council. Health Services in Scotland: Reports for 1969. H.M.S.O., Edinburgh, August, 1970, Cmd. 4392.
- Scottish Home and Health Department. The Sherriff Court. Report to the Committee Appointed by the Secretary of State for Scotland under the Chairmanship of the Rt. Hon. Lord Grant, T.D. H.M.S.O., Edinburgh, July, 1967, Cmd. 3248.
- Scottish Home Department. Local Government in Scotland. H.M.S.O., Edinburgh, 1968.
- Scottish Institute of Adult Education. Scottish Adult Education. No. 50, Report of the Working Party on Adult Education in Scotland, A. Walker & Son Ltd., Printers, Galashiels.
- Solow, Robert M. "Technical Change and the aggregate production function", Review of Economics and Statistics. Vol. XXXIX, No. 3, August, 1957.
- Stromsdorfer, E. W. "Determinants of Economic Success in Retraining the Unemployed: the West Virginia Experience", Journal of Human Resources. Spring, 1968, pp. 139-58.
- The Registrar General for Scotland. Annual Estimates of the Population of Scotland, 1969. H.M.S.O., Edinburgh, 1970. (and for 1970, 1971)
- Training Services Agency. Sponsored Training: A Training Service for Industry. H.M.S.O., London, May, 1975.

Training Services Agency. Train for a Better Job with T.O.P.S.
Training Services Agency, Edinburgh, 1977.

Youth, Community and Social Work Department, Jordanhill College
of Education. Focus on Youth and Community Service.
Alma Press, Edinburgh, August, 1971.